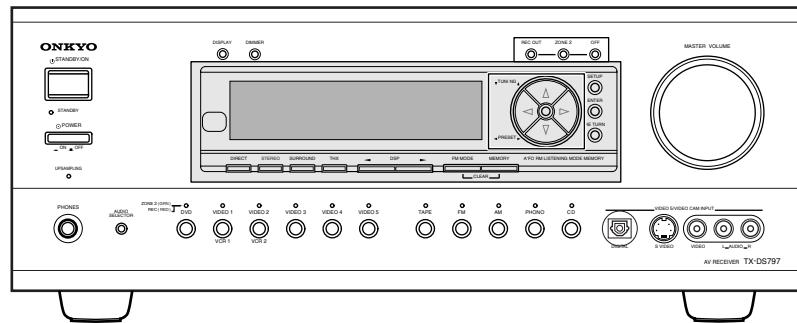


ONKYO® SERVICE MANUAL

AV RECEIVER MODEL TX-DS797



Black, Golden and Silver models

BMDD	120V AC, 60Hz
BMPP,SMPP,BMPA,GMPPA	230-240V AC, 50Hz
BMWT,GMWT,GMWR	120/220-230V AC, 50/60Hz
GMGT	220-230V AC, 50Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL. MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

SPECIFICATIONS

AMPLIFIER SECTION

Continuous Average Power output (FTC)

All channels:

100 watts per channel min. RMS at 8 ohms, 2 channels driven from 20 Hz to 20 kHz with no more than 0.08% total harmonic distortion.
130 watts min. RMS at 6 ohms, 2 channels driven from 1 kHz with no more than 0.1% total harmonic distortion.

Continuous Power output (DIN)

Maximum Power output (EIAJ)
Dynamic Power Output (Stereo)

135 watts at 6 ohms
160 watts at 6 ohms

2 x 250 watts at 3 ohms
2 x 210 watts at 4 ohms

2 x 130 watts at 8 ohms

Total Harmonic Distortion:

0.08% at rated power
0.08% at 1 Watt output

IM Distortion:

0.08% at rated power
0.08% at 1 Watt output

Damping Factor:

60 at 8 ohms

Input Sensitivity and Impedance

PHONO: 2.5 mV, 50 kohms
LINE (CD, TAPE, DVD, VIDEO 1-5): 200 mV, 50 kohms
MULTICHANNEL INPUT (FRONT L/C/R, SURROUND L/R, SURROUND BACK L/R): 200 mV, 50 kohms
(SUBWOOFER): 36 mV, 50 kohms
COAXIAL 1, 2, 3 (DIGITAL): 0.5 Vp-p, 75 ohms
DVD, VIDEO 1, 2, 3, 4, 5: 1 Vp-p, 75 ohms
1 Vp-p, 75 ohms (Y)
0.28 Vp-p, 75 ohms (C)
COMPONENT VIDEO 1, 2: 1 Vp-p, 75 ohms (Y)
0.7 Vp-p, 75 ohms (PB, PR)

Output Level and Impedance

Rec out (TAPE, VIDEO 1, 2): 200 mV, 470 ohms
Pre out: 1 V, 470 ohms

ZONE 2 OUT: 100mV, 470 ohms

VIDEO (VIDEO 1, 2, MONITOR

OUT, ZONE 2 OUT): 1 Vp-p, 75 ohms
1 Vp-p, 75 ohms (Y)
0.28 p-p, 75 ohms (C)
COMPONENT VIDEO OUT: 1 Vp-p, 75 ohms (Y)
0.7 Vp-p, 75 ohms (PB, PR)

Phono Overload:

120 mV RMS at 1 kHz, 0.5% T.H.D.

Frequency Response:

10 Hz to 100 kHz : +1/-3 dB
(CD in Direct mode)

RIAA Deviation:

20 Hz to 20 kHz : 0.8 dB

Tone Control

Bass: 10 dB at 50 Hz
Treble: 10 dB at 20,000 Hz

Signal-to-Noise Ratio (Stereo)

Phono: 80 dB (IHF A, 5 mV input)
CD/Tape: 110 dB (IHF A, 0.5 V input)

TUNER SECTION

FM

Tuning Range: 87.5—108.0 MHz (50 kHz steps)

Usable Sensitivity

Mono: 11.2 dBf, 1.0 uV (75 ohms IHF)
0.9 uV (75 ohms DIN)
17.2 dBf, 2.0 uV (75 ohms IHF)
23 uV (75 ohms DIN)

Stereo: 50 dB Quieting Sensitivity

Mono: 17.2 dBf, 2.0 uV (75 ohms)
37.2 dBf, 20 uV (75 ohms)

Capture Ratio: 2.0 dB

Image Rejection Ratio

USA & Canadian models: 40 dB

Other area models: 85 dB

IF Rejection Ratio: 90 dB

Signal-to-Noise Ratio

Mono: 76 dB
Stereo: 70 dB

Alternate Channel Attenuation:

55 dB Selectivity: 50 dB (DIN)

AM Suppression Ratio: 50 dB

Total Harmonic Distortion

Mono: 0.2%
Stereo: 0.3%

Frequency Response: 30 Hz—15 kHz, 1.0 dB

Stereo Separation: 45 dB at 1 kHz

30 dB at 100 Hz—10 kHz

AM

Tuning Range

USA & Canadian models: 530 to 1,710 kHz (10-kHz steps)

European & Australian models: 522 to 1,611 kHz (9-kHz steps)

Worldwide models: 531 to 1,602 kHz (9-kHz steps)

530 to 1,710 kHz (10-kHz steps)

Usable Sensitivity: 30 uV

Image Rejection Ratio: 40 dB

IF Rejection Ratio: 40 dB

Signal-to-Noise Ratio: 40 dB

Total Harmonic Distortion: 0.7%

GENERAL

Power Supply

USA & Canadian models: AC 120 V, 60 Hz

European & Australian models: AC 230-240 V, 50 Hz

Some Asian models: AC 220-230 V, 50/60 Hz

Worldwide models: AC 220-230 and 120 V switchable, 50/60 Hz

Power Consumption

USA & Canadian models: 6.8 A

Other models: 550 W

Dimensions (W x H x D): 435 x 175 x 459 mm

17-1/8" x 6-7/8" x 18-1/16"

Weight

USA & Canadian models: 35.9 lbs.

Other models: 17.3 kg

REMOTE CONTROLLER

Transmitter: Infrared

Signal range: Approx. 16 ft., 5 meters

Power supply: Two "AA" batteries (1.5 V x 2)

Specifications and features are subject to change without notice.

A**B****C****D**

SERVICE PROCEDURES

1. Replacing the fuses

1  This symbol located near the fuses indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating refer to the marking adjacent to the symbol.

2  Ce symbole indique que le fusible utilise est a rapide. Pour une protection permanente, n'utiliser que fusibles de même type. Ce dernier est la qu le présent symbol est apposé.

CIRCUIT NO.	PART NO.	DESCRIPTION
F901	252199	10A-UL/T-314,Fuse <D/WT/GT>
F902	252077,	4A-SE-EAK,
	252243 or	4A-SE-TL250V or
	252277	4A-SE-TL250V,Fuse <P/WT/R/A/GT>
F903	252075,	2.5A-SE-EAK,
	252241 or	2.5A-SE-TL250V or
	252275	2.5A-SE-TL250V,Fuse <P/WT/R/A/GT>
F9501,F9502	252160 or	2.5A-UL/T-237 or
	252254	2.5A-T/UL-ST2,Fuse <D>
	252075,	2.5A-SE-EAK,
	252241 or	2.5A-SE-TL250V or
	252275	2.5A-SE-TL250V,Fuse <P/WT/R/A/GT>
F9503,F9504	252158 or	1.6A-UL/T-237 or
	252252	1.6A-T/UL-ST2,Fuse <D>
	252073 or	1.6A-SE-EAK or
	252239	1.6A-SE-TL250V,Fuse <P/WT/R/A/GT>

Note: <D>:120V model only

<P>: European model only

<WT>: Worldwide model only

<R>: Asian model only for 230V

<GT>: 220V model only

<A>: Australian model only

2. To initialize the unit

This device employs a microprocessor to perform various functions and operations. If interference generated by an external power supply, radio wave, or other electrical source results in accident which causes the specified operations and functions to operate abnormally.

To perform a result, please follow the procedure below.

1. Press and hold down the VIDEO 1 button, then press the STANDBY/ON button.

2. After "clear" is displayed, the preset memory and each mode stored in the memory, such as surround, are initialized and will return to the factory setting.

3. Safety-check out

(Only U.S.A. model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer.

5 Connect the insulating-resistance tester between the plug of power supply cord and screw on the back panel.

Specifications: $3.3\text{Mohm} \pm 10\%$ at 500V.

4. Memory Preservation

This unit does not require memory preservation batteries. A built-in memory power back-up system preserves the contents of the memory during power failures and even when the unit is unplugged. The unit must be plugged in order to charge the back-up system.

The memory preservation period after the unit has been unplugged varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of a few weeks after the last time the unit has been unplugged. This period is shorter when the unit is exposed to a highly humid climate.

5. Setting the Voltage selector (Worldwide models only)

Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before plugging in the unit.

1. Determine the proper voltage for your area: 220-230 V or 120 V.
2. If the preset voltage is not correct for your area, insert a screwdriver into the groove in the switch. Slide the switch all the way to the right (120 V) or to the left (220-230 V), whichever is appropriate.

A

B

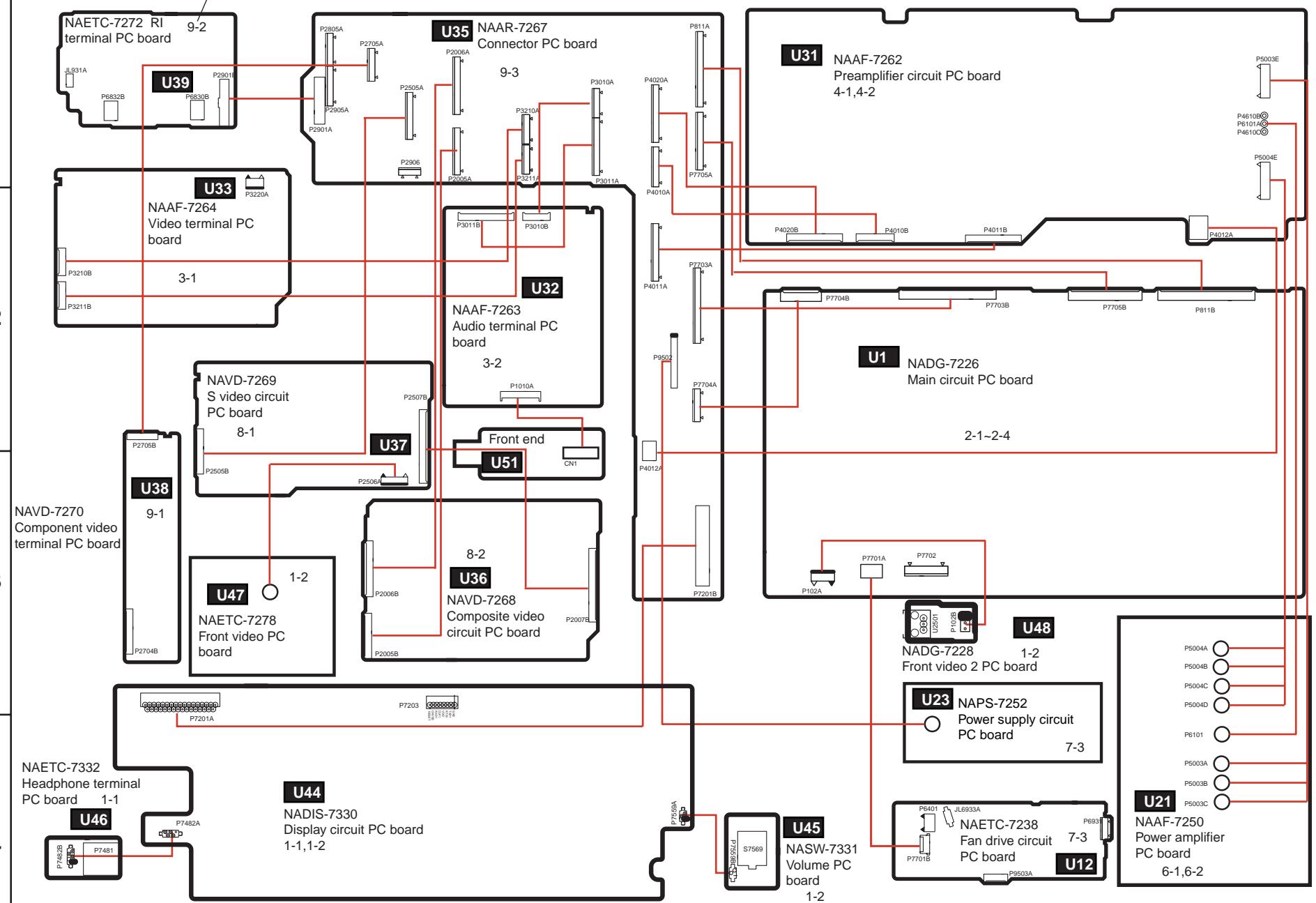
C

D

E

WIRING VIEW 1

9-2 shows the number of schematic diagram.



A

B

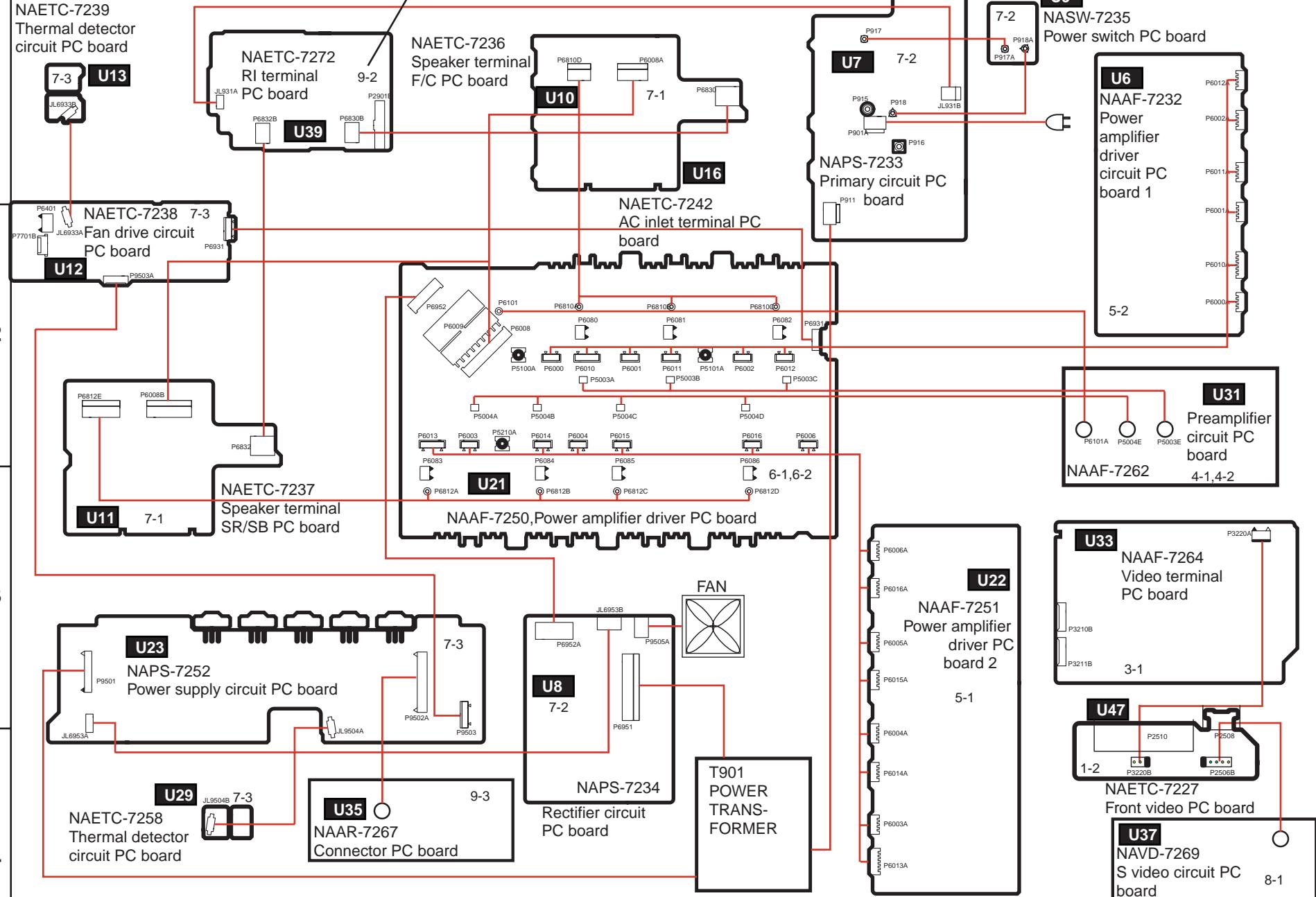
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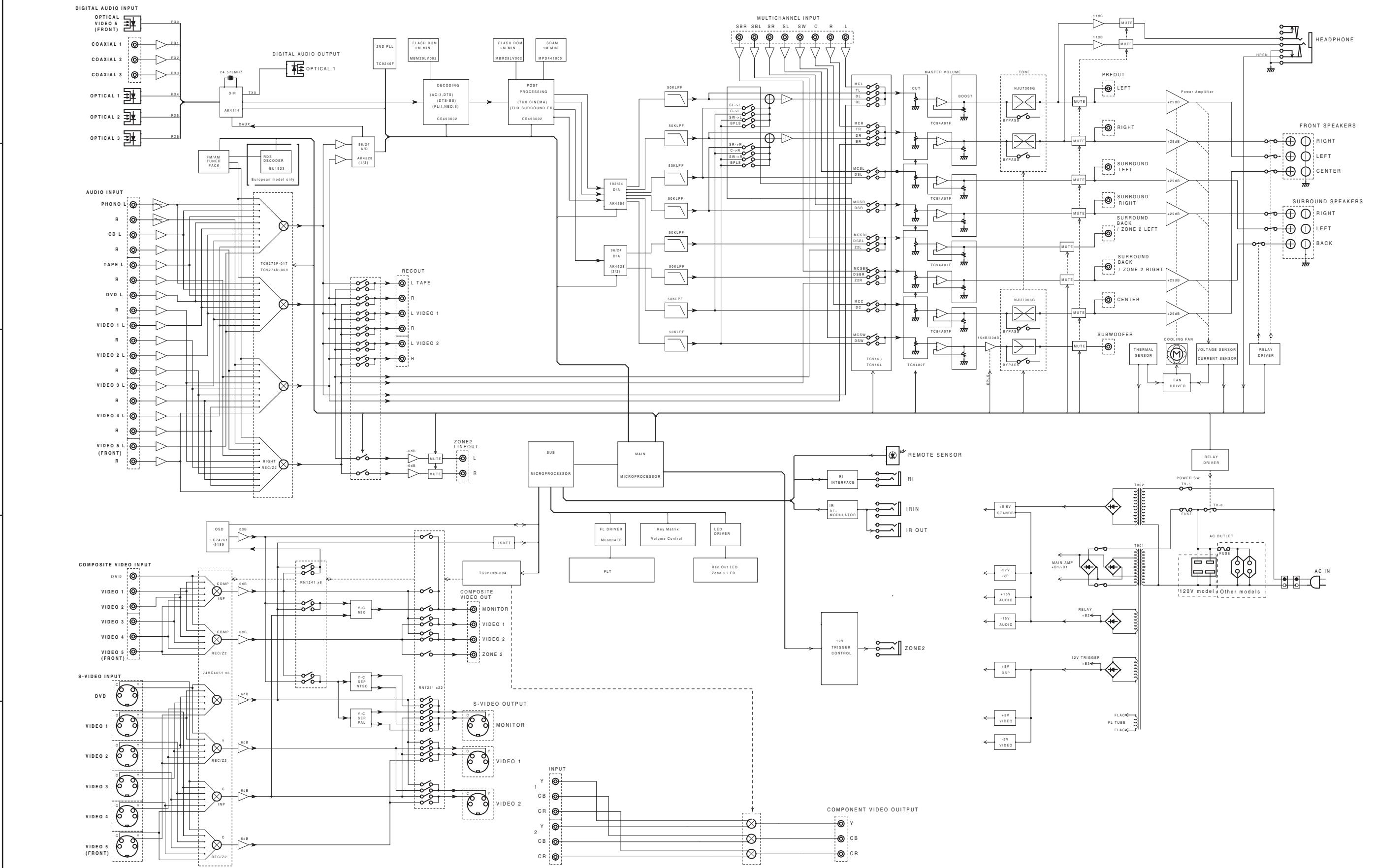
E

WIRING VIEW 2

9-2 shows the number of schematic diagram.



BLOCK DIAGRAM



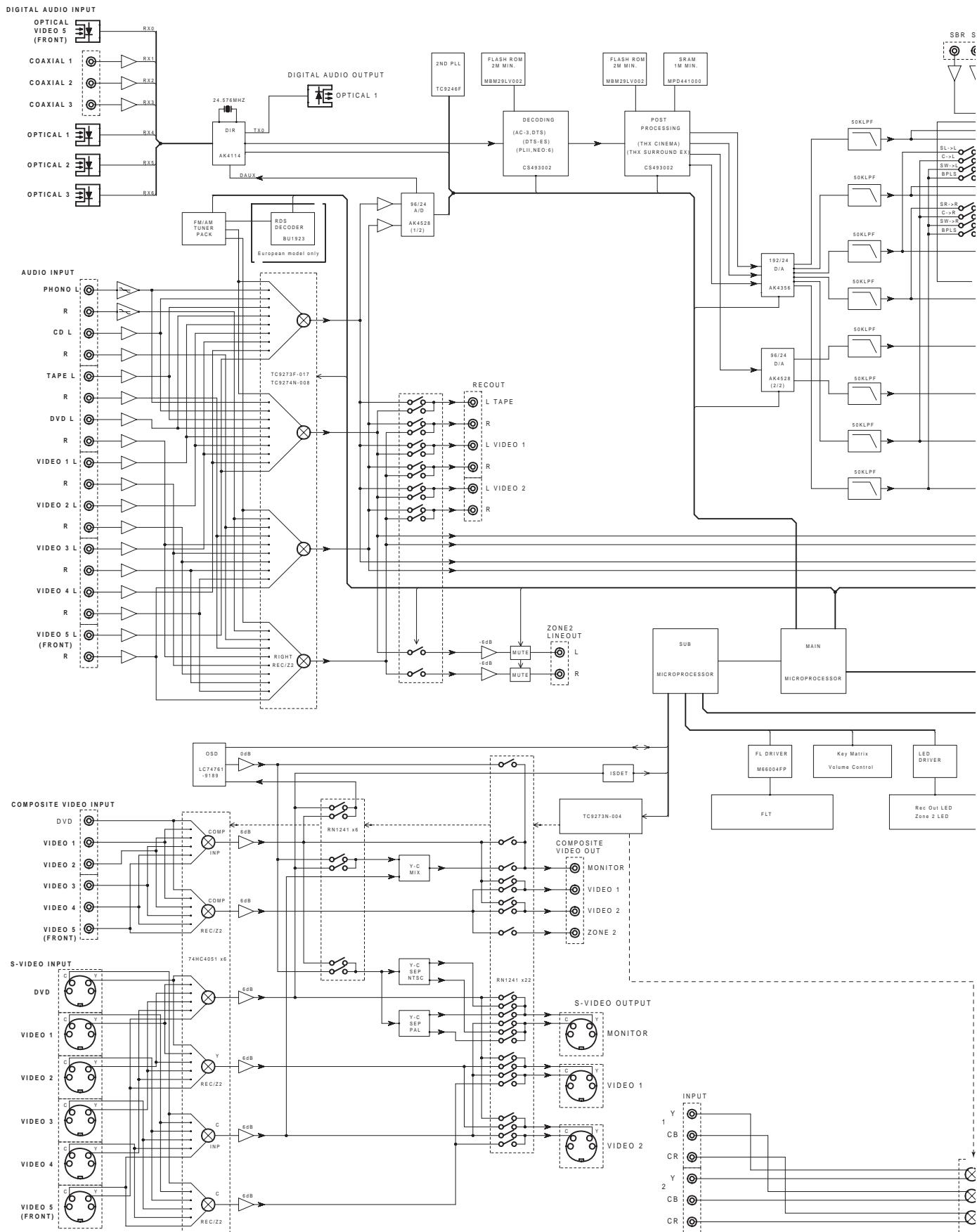
A

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BLOCK DIAGRAM 1



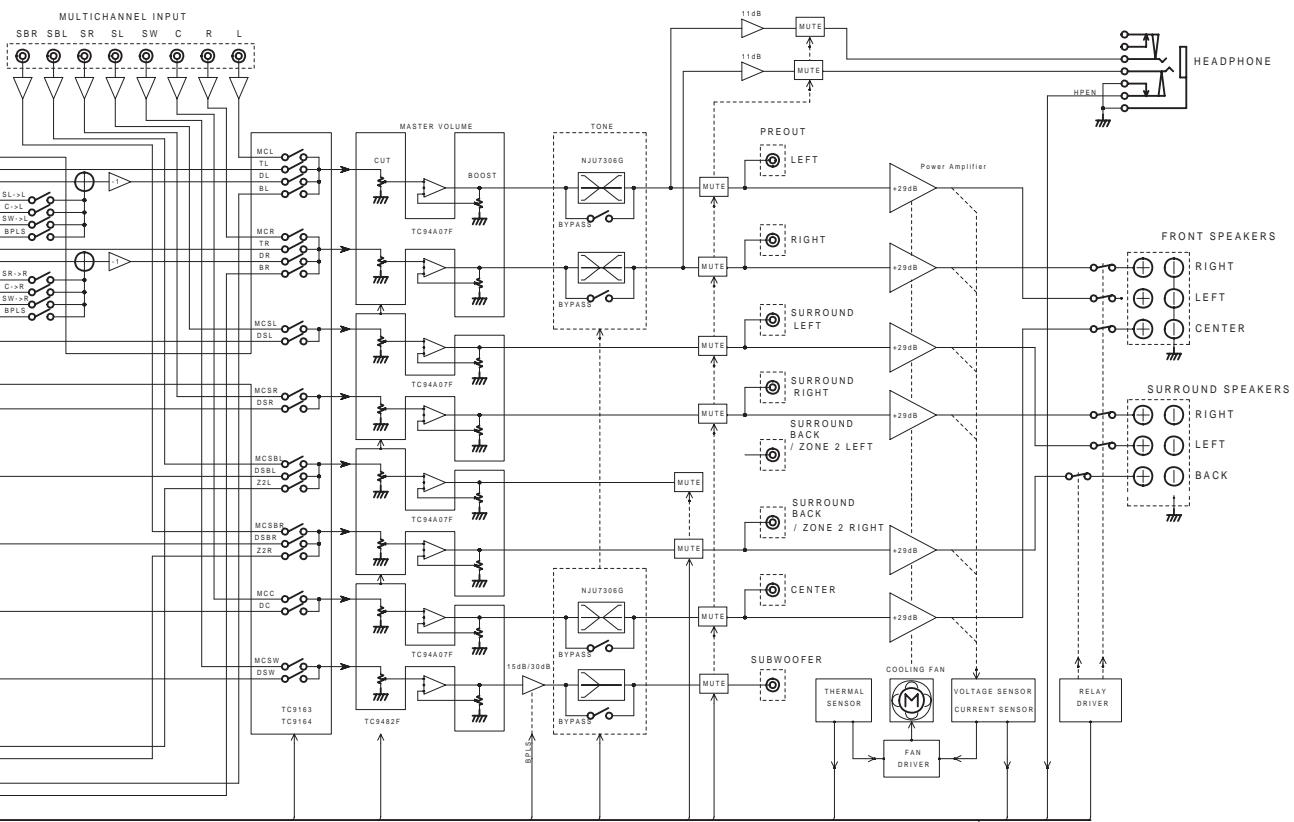
A

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C

D

BLOCK DIAGRAM 2



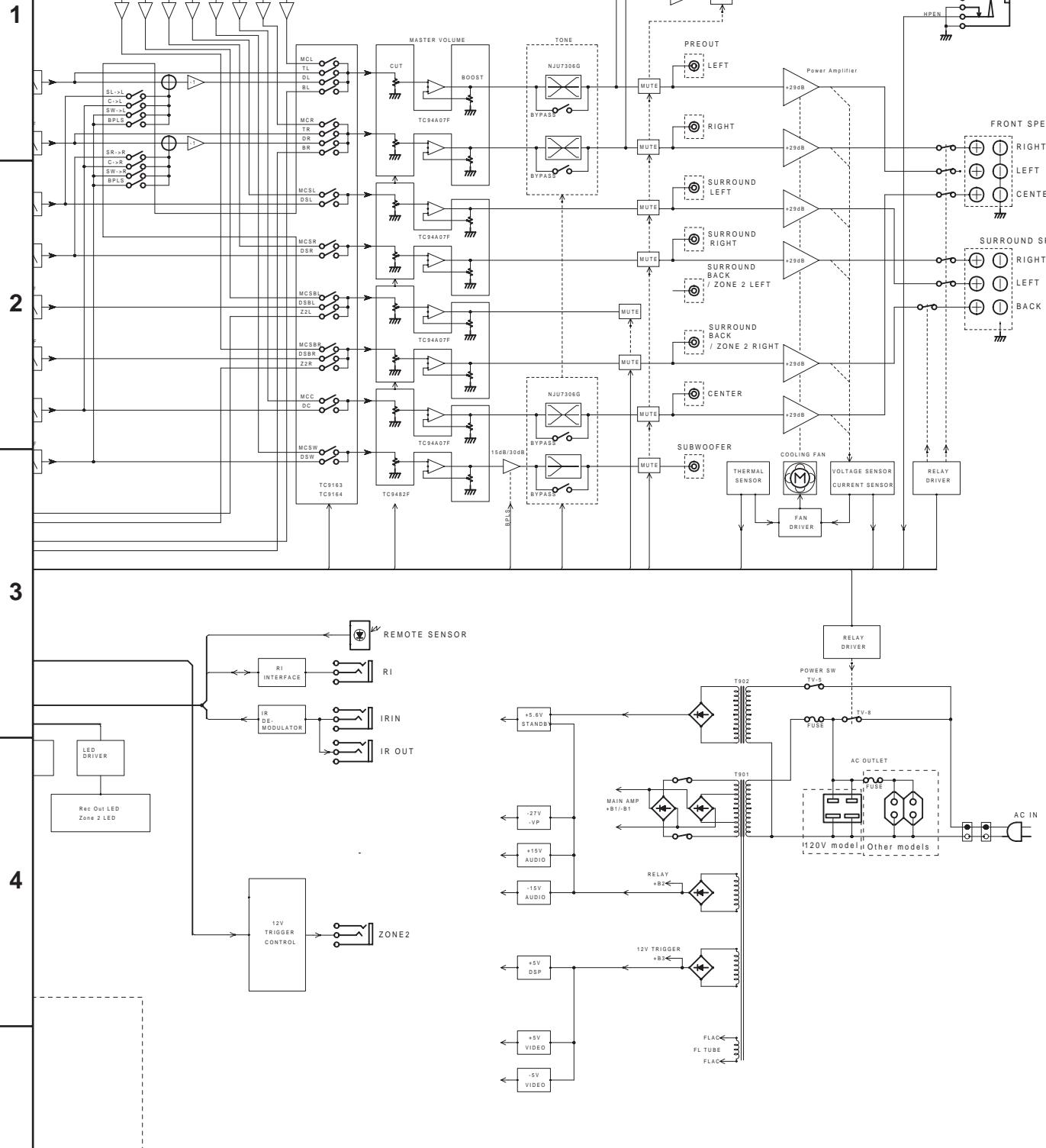
1

2

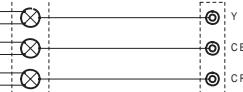
3

4

5



COMPONENT VIDEO OUTPUT

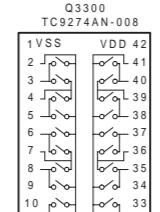


A

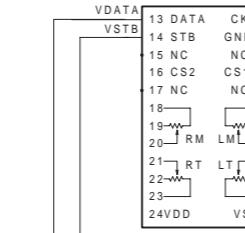
MICROPROCESSOR CONNECTION VIEW

MAIN MICROPROCESSOR

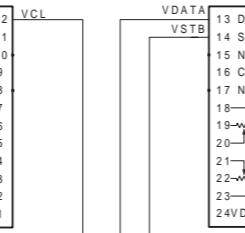
SOURCE SELECTOR SW

Q3300
TC9274AN-008

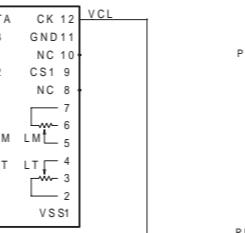
FRONT CH. VOLUME

Q4200
TC94A07F

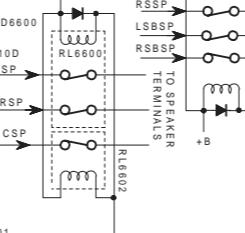
SURROUND CH. VOLUME

Q4202
TC94A07F

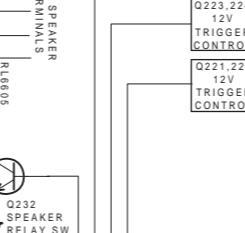
C/SW CH. VOLUME

Q4201
TC94A07F

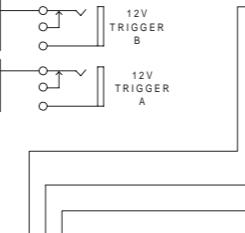
SB CH. VOLUME

Q4203
TC94A07F

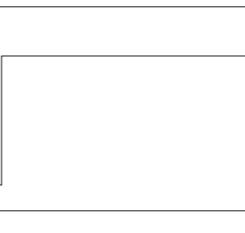
TUNER PACK

Q181
RDS DECODER
BU1923F

FMEM/SRAM

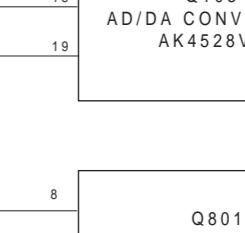
Q7701
M30624MGA-358FPB988

PROTECTION CIRCUIT

Q7702
CSTC16.0
M4U92

POWER FAILURE

DETECTION



THERMAL

DETECTION



RL6901,2

BIAS VOLTAGE



A

B

C

D

E

F

G

H

Q103
AD/DA CONVERTER
AK4528VFQ801
DA CONVERTER
AK4536VQQ712
RAMQ702
RAMQ7201
SUBMICROPROCESSORQ711
POST PROCESSING
(THX CINEMA,
THX SURROUND EX)
CS493002Q701
DECODING
(AC-3,DTS,DTS
ES,PLII,NEO6)
CS493002Q104
DIR
AK4114

1

2

3

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5

MAIN MICROPROCESSOR

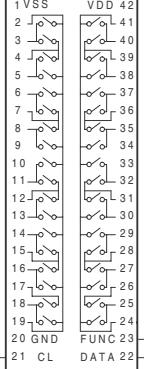
Terminal Descriptions

No.	Function	I/O	Act.	Description	No.	Function	I/O	Act.	Description
8	BYTE	I		Input pin to change the width of external data bus. Connect to Vss.	52	ADR152	O	H	Signal output pin to control address 15 of flash memory for second DSP.
9	CNVSS	I		Input pin to change the processor mode. Connect to Vss.	53	ADR162	O	H	Signal output pin to control address 16 of flash memory for second DSP.
12	-RESET	I		Reset pin of microprocessor	54	ADR172	O	H	Signal output pin to control address 17 of flash memory for second DSP.
13	XOUT	O		Output pin of main clock oscillator	55	DFSDAC	O	H	DAC sampling control output pin.
14	VSS	I		Ground pin	56	-DARST	O	L	Reset output pin for six channels DAC.
15	XIN	I		Input pin of main clock oscillator	57	-CODECOPD	O	L	Reset output pin for CODEC IC.
16	VCC	I		Power supply pin. Apply 5V.	58	DFSCO	O	H	Sampling frequency control output pin for CODEC IC.
18	PRTCTV	I	H	Abnormal voltage/current detection input pin from protection circuit	62	VCC	I		Power supply pin. Apply 5V.
19	RDSSCK	I	CLK	Modulator clock signal input pin from RDS decoder IC.	64	VSS	I		Power supply pin. Connect to ground.
20	-POFF	I	L	Input pin from detection circuit of power failure	68	TRG12A	O	H	Output pin A to control the 12V trigger circuit.
21	-PRTCTTHM	I	L	Input pin from thermal detector circuit.	69	TRG12B	O	H	Output pin B to control the 12V trigger circuit.
22	SEC1H	O	H	Output terminal to change voltage of main amplifier.	70	TRG12Z	O	H	Output pin to control the 12V trigger circuit of zone 2.
23	INT0	I	H	Input terminal from interrupter output of DIR IC.	71	SPRLZ2	O	H	Output pin to control the speaker relay of zone 2.
24	INT1	I	H	Output terminal to interrupter input of DIR IC.	72	SLRLF	O	H	Output pin to control the speaker relay.
25	(DSPWRITE)	I	L	Input port for check when DSP flash write.	73	POWER	O	H	Output pin to control the relay of power source.
26	DIGSO	O	H	Serial data output pin to DSP,DIR,DAC, nd Digital input ICs.	74	PLLCE	O	H	Latch data output pin to PLL IC.
27	DIGSI	I	H	Serial data input pin from DSP, and DIR ICs.	75	TUMUT	O	H	Muting control output pin for tuner block.
28	DIGSCK	O	CLK	Serial clock output pin to DSP,DIR,DAC,Digital input ICs.	76	-SD	I	L	Signal detection input pin from tuner section.
29	-INTRQ1	I	L	INTRQ input pin from DSP IC 2(CS49329)	77	-STEREO	I	L	Stereo broadcast detection input pin.
30	-INTRQ2	I	L	INTRQ input pin from DSP IC 1(CS49300)	78	RDS DATA	I	H	Data input pin from RDS demodulator IC.
32	-SUBRESET	O	L	Reset signal output pin to sub-microprocessor.	79	RDSSIG	I	H	Check signal input pin of RDS demodulator IC.
33	-SUBPOFF	O	L	Output pin to connect to pin POFF of sub-microprocessor.	81	AMUT	O	H	Muting control output pin for audio circuit.
34	-SUBREQ	I	L	Communication request input pin from sub-microprocessor.	82	Z2L MUT	O	H	Muting control output pin for line of zone 2.
35	MAINSO	O	H	Serial data output pin to sub-microprocessor.	83	Z2MUT	O	H	Muting control output pin for zone 2.
36	MAINSI	I	H	Serial data input pin from sub-microprocessor.	84	VPCLK	O	H	Serial clock output pin to electrical volume and PLL IC,
37	MAINSCK	O	CLK	Serial clock output pin for communication of main and sub-microprocessors.	85	VPDATA	O	H	Serial data output pin to electrical volume and PLL IC,
38	-MAINREQ	O	L	Communication request output pin of main microprocessor.	86	VSTB	O	H	Strobe output pin to electrical volume IC.
39	-DIRCS	O	L	Chip select output pin of DIR IC,	87	TCS2	O	L	Chip select output pin to tone control IC of surround and center channels.
40	-DIRRST	O	L	Reset signal output pin to DIR IC,	88	TCS1	O	L	Chip select output pin to tone control IC of front channel..
41				Writing port of flash memory IC.	89	TDATA	O	H	Serial data output pin to tone control IC.
42	-DSPRST1	O	L	Reset signal output pin to DSP IC 2.	90	TCLK	O	CLK	Serial clock output pin to tone control IC.
43	-DSPCS1	O	L	Chip select output pin to DSP IC 1.	91	FSTB	O	H	Strobe output pin to function switch ICs.
44	FMEM/SRAM1	O	H	Memory select output pin to RAM.	92	FDATA	O	H	Serial data output pin to function switch ICs.
45	ADR151	O	H	Signal output pin to control address 15 of flash memory for first DSP.	93	FCLK	O	CLK	Serial clock output pin to function switch ICs.
46				Port to write the flash memory IC.	94	HPMUT	O	H	Muting control output pin for headphone circuit.
47	ADR161	O	H	Signal output pin to control address 16 of flash memory for first DSP.	96	VSS	I		Power supply pin for A/D converter. Connect to ground.
48	ADR171	O	H	Signal output pin to control address 17 of flash memory for first DSP.	97	VOLH	I	H	Measurement input pin of main amplifier output.
49	-DSPRST2	O	L	Reset output pin to DSP IC 2.	98	VREF	I		Reference voltage input pin for A/D converter.
50	-DSPCS2	O	L	Chip select output pin to DSP IC 2.	99	VCC	I		Power supply pin for A/D converter. Apply 5V.
51	FMEM/SRAM2	O	H	2nd DSP memory select output pin.L=FLASH,H=SRAM					

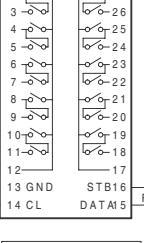
A**B****C****D**

MAIN MICROPROCESSOR CONNECTION DIAGRAM 1

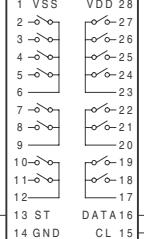
1

SOURCE
SELECTOR SWQ3300
TC9274AN-008

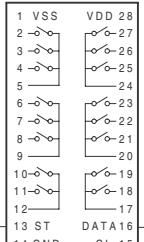
2

Q3100
TC9273F-017SOURCE
SELECTOR SW

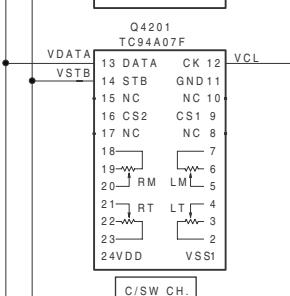
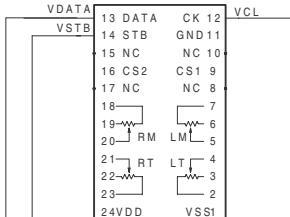
3

Q4101
TC9164AFSURROUND MODE
SELECTOR SW

4

Q4100
TC9163AF

5

FRONT CH.
VOLUMEQ4200
TC94A07FC/SW CH.
VOLUMEQ3400
ZONE 2 AMP.

MUTE SW

PRE OUT

Q4213 SB
PRE AMPSB CH.
VOLUMEQ181 RDS
DECODER
BU1923F

ROSSIG

TUN PAC

81 AMUT1
82 Z2LUT1
83 Z2MUT1
84 VPCL
85 VPDATA
86 VSTB
87 T2STB
88 T1STB
89 TDATA
90 TCL
91 ISTB
92 FDATA
93 FCL
94 HPMUT
95 P101/AN1
96 AVSS
97 VOLH
98 VREF
99 AVCC
10080 SD
79 RDS/SD
78 STEREO

76 SD

75 RDS/SD

74 STEREO

73 SD

72 RDS/SD

71 STEREO

70 SD

69 RDS/SD

68 STEREO

67 SD

66 RDS/SD

65 STEREO

64 SD

63 RDS/SD

62 STEREO

61 SD

60 RDS/SD

59 STEREO

58 SD

57 RDS/SD

56 STEREO

55 SD

54 RDS/SD

53 STEREO

52 SD

51 RDS/SD

50 STEREO

49 SD

48 RDS/SD

47 STEREO

46 SD

45 RDS/SD

44 STEREO

43 SD

42 RDS/SD

41 STEREO

40 SD

39 RDS/SD

38 STEREO

37 SD

36 RDS/SD

35 STEREO

34 SD

33 RDS/SD

32 STEREO

31 SD

30 RDS/SD

29 STEREO

28 SD

27 RDS/SD

26 STEREO

25 SD

24 RDS/SD

23 STEREO

22 SD

21 RDS/SD

20 STEREO

19 SD

18 RDS/SD

17 STEREO

16 SD

15 RDS/SD

14 STEREO

13 SD

12 RDS/SD

11 STEREO

10 SD

9 RDS/SD

8 STEREO

7 SD

6 RDS/SD

5 STEREO

4 SD

3 RDS/SD

2 STEREO

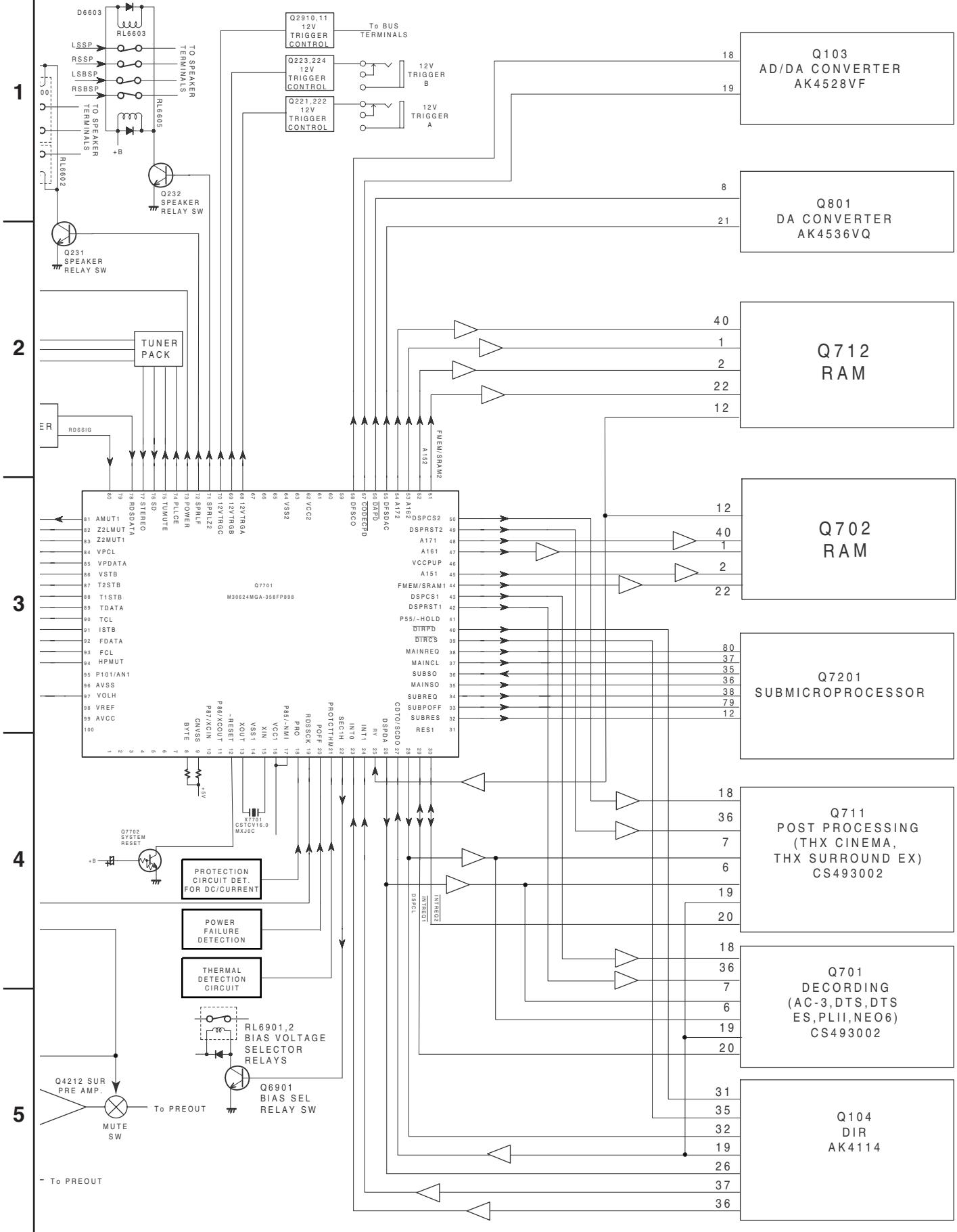
1 SD

0 RDS/SD

STEREO

SD

RDS/SD

A**B****C****D****MAIN MICROPROCESSOR CONNECTION DIAGRAM 2**

A

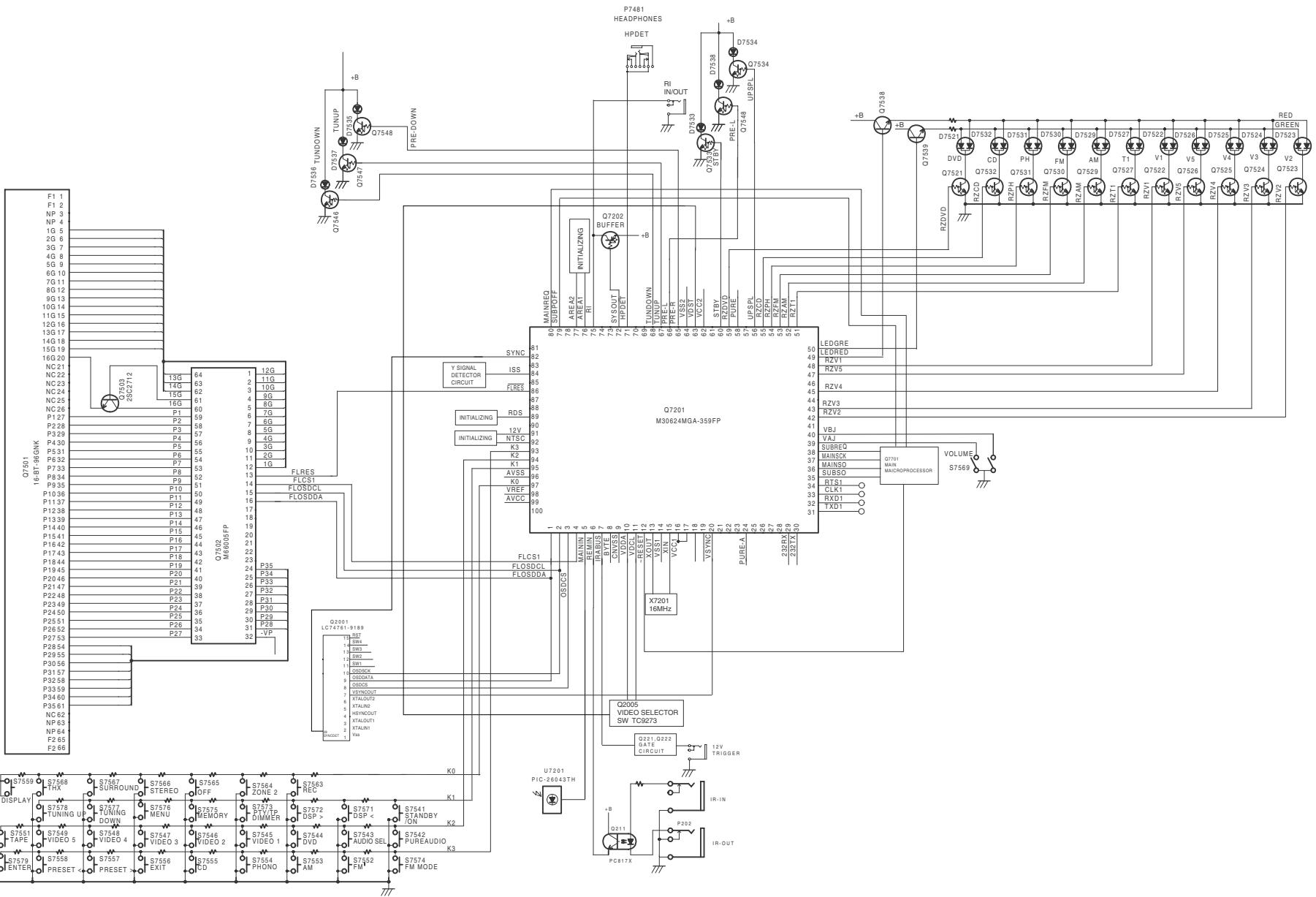
B

C

D

8

SUBMICROPROCESSOR-CONNECTION DIAGRAM



SUBMICROPROCESSOR

Terminal Descriptions

No.	Function	I/O	Descriptions	No.	Function	I/O	Descriptions
1	FLOSDDA	O	Serial data output pin for FL tube driver and OSD IC.	50	LEDGRE	O	Power supply control output pin for zone 2 indicator
2	FLOSDCL	O	Serial clock output pin for FL tube driver and OSD IC.	51	RZTP	O	Tape indicator output pin.
3	OSDCS	O	Chip select output pin for OSD IC	52	RZAM	O	AM indicator output pin.
4	FLCS	O	Chip select output pin for FL tube driver	53	RZFM	O	FM indicator output pin.
5	MAININ	I	Signal input pin from remote control	54	RZPH	O	Phono indicator output pin.
6	REMIN	I	Signal input pin from external remote control	55	RZCD	O	CD indicator output pin.
7	Z2RIN	I	Signal input pin from remote control of zone 2. Not used.	58	UPSPL	O	Upsampling frequency indicator control output pin
8	VSS		Power supply pin	58	PURE	O	Pure audio indicator output pin.
10	VDDA	O	Serial data output pin for video function switch IC	59	RZDVD	O	DVD indicator output pin.
11	VDCL	O	Serial clock input pin for video function switch IC	60	STBY	O	STANDBY/RECEIVED indicator output pin.
12	~RESET	I	System reset input.	62	VCC		Power supply pin. Apply 5V.
13	XOUT	O	Connect the ceramic oscillator 16MHz.	63	VDST	O	Strobe output pin for video switch control output pin
14	VSS		Ground pin	64	VSS		Power supply pin. Connect to ground.
15	XIN	I	Connect the ceramic oscillator 16MHz.	71	HPDET	I	Headphone detect5ion input pin.
16	VCC		Power supply pin. Apply 5V.	72	SYSOUT	O	System code output pin
20	VSYNC	I	Vertical synchronizing signal input pin.	75	SYSIN	I	System code input pin.
24	PURE	O	Pure audio relay control output pin. Not used.	76	AREA1	I	Initializing input pin for band aria.
29	232RX	I	Receiving input pin of RS232C. Not used.	77	AREA2	I	Initializing input pin for band aria.
30	232TX	O	Sending output pin of RS232C. Not used..	79	SUBPOFF	I	Power failure intercept input pin between microprocessors.
31	TXD1	O	Rewrite sending output pin to flash IC.	80	MAINREQ	I	Request input to communicate data between microprocessors.
32	RXD1	I	Rewrite receiving input pin from flash IC.	82	SYNCDET	I	External synchronizing detection input pin.
33	CLK1	I	Rewrite clock input pin from flash IC.	84	ISS	I	S video signal detection input pin.
34	RTS1	O	Rewrite response output pin to flash IC.	86	FLRES	O	Reset signal output pin to the FL tube driver IC.
35	SUBSO	O	Data sending output pin to communicate between microprocessors.	89	RDS	I	Initializing input pin for RDS broadcast.
36	MAINSO	I	Data receiving input pin to communicate between microprocessors.	90	AMP	I	Initializing input pin for model
37	MAINCL	I	Clock receiving input pin to communicate between microprocessors.	91	12V	I	Initializing input pin for 12V trigger.
38	SUBREQ	O	Request signal output pin to communicate between microprocessors.	92	NTSC	I	Initializing input terminal for NTSC/PAL.
39	VAJ	I	Pulse signal input terminal A pin from rotary encoder.	93	K3	I	Operation key connection pin.
40	VBJ	I	Pulse signal input terminal B pin from rotary encoder.	94	K2	I	Operation key connection pin.
42	RZV2	O	Video 2 indicator output pin.	95	K1	I	Operation key connection pin.
43	RZV3	O	Video 3 indicator output pin.	96	VSS		Power supply pin for A/D converter.
45	RZV4	O	Video 4 indicator output pin.	97	K0	I	Operation key connection pin.
47	RZV5	O	Video 5 indicator output pin.	98	VREF		Reference voltage input pin for A/D converter.
48	RZV1	O	Video 1 indicator output pin.	99	VCC		Power supply pin for A/D converter. Apply 5V.
49	LEDRED	O	Power supply control output pin for recording indicator.				

ADJUSTMENT AND CONFIRMATION PROCEDURES 1

Idling current adjustment

Before Idling adjustment, turn the trimming resistors R6040, R6041, R6042, R6043, R6044 and R9046 to counter clockwise. Connect the DC voltmeter to sockets P6080, P6081, P6082, P6083, P6084 and P6086.

After turn POWER to ON, adjust the trimming resistors R6040, R6041 and R6042 so that the reading of voltmeter becomes 7.0 mV. (Front and center channels)

Adjust the trimming resistors R6043, R6044 and R6046 so that the reading of voltmeter becomes 5.0 mV. (Surround and surround back channels)

After adjustment, attach the top cover.

Confirm the voltage of points above after about five minutes.

Front and center channels

When less than 9.0 mV, readjust the resistors above so that the voltage becomes 9.0 mV.

When 9.0 mV to 11.0 mV, you are not necessary to adjust.

When more than 11.0 mV, readjust the resistors above so that the voltage becomes 11.0 mV.

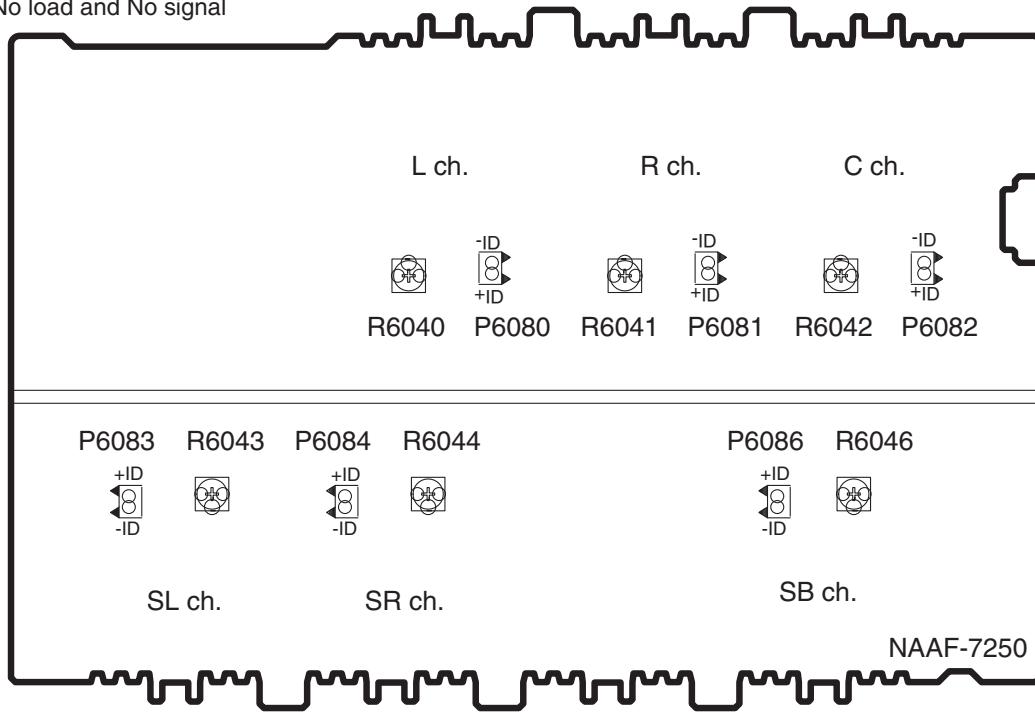
Surround and surround back channels

When less than 6.0 mV, readjust the resistors above so that the voltage becomes 6.0 mV.

When 6.0 mV to 8.0 mV, you are not necessary to adjust.

When more than 8.0 mV, readjust the resistors above so that the voltage becomes 8.0 mV.

Note: No load and No signal



Confirmation of protection circuit

1. Confirmation of operation of speaker relay

Confirm that the speaker relays turn ON approximate. 5 seconds after the power switch is turned ON.
Confirm that the speaker relays turn OFF immediately after the power switch is turned OFF.

2. Confirmation of DC detection circuit

Press and hold down CD button, then press STANDBY/ON and DISPLAY buttons to set the unit to "TEST-1" mode.

After "TEST-1" on the FL tube light on, press VIDEO 1 button to set the unit to "TEST-1-00".

Apply DC 1.5 to 3V to MULTI CHANNEL INPUT terminal with no load.

Confirm that the speaker relay turns OFF.

Apply DC -1.5 to -3V to MULTI CHANNEL INPUT terminal with no load.

Confirm that the speaker relay turns OFF.

Caution: Don't apply DC voltage more than 1 sec..

ADJUSTMENT AND CONFIRMATION PROCEDURES 2

3. Confirmation of Current detection circuit

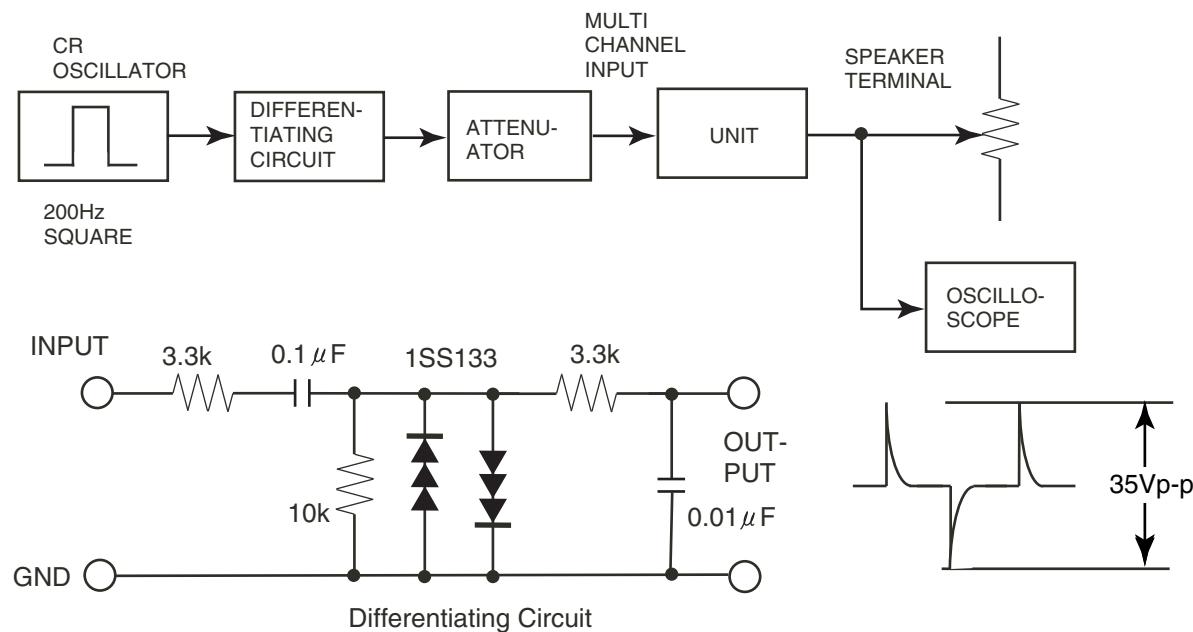
Set the unit to "TEST-1-00".

Connect the differentiating circuit and apply the 200Hz square signal to MULTI CHANNEL INPUT terminal of each channel.

Adjust the attenuator or Volume so that the output level becomes 35V p-p.

Confirm that the speaker relay does not turn OFF when a 3.0 ohm load is connected.

Confirm that the speaker relay turns OFF when a 1.5 ohm load is connected.



Confirmation of fan

Set the unit to "TEST-1-00".

Apply the 1kHz -30dBV signal to the left channel of MULTI-CH terminal with no load.

Confirm that the fan rotates slow speed after few seconds.

Connect the 1.2 kohm/1W resistor between terminals COM and TH-1 of P6401 with no input signal.

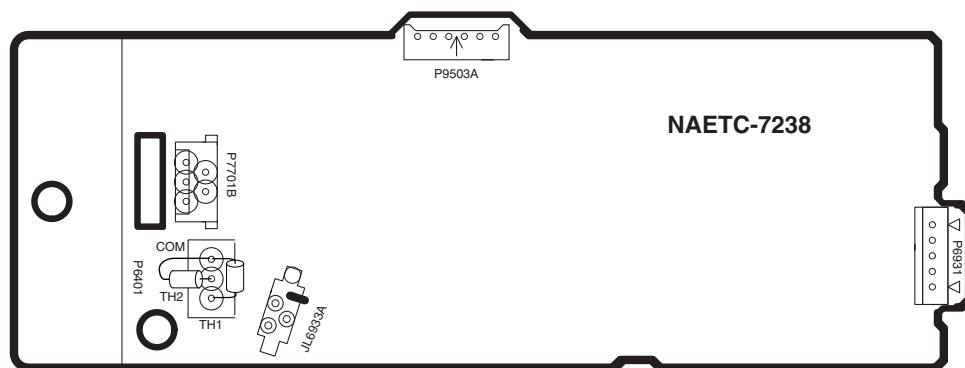
Confirm that the fan rotates slow speed after few seconds.

Next apply the 1kHz -30dBV signal to the left channel of MULTI-CH terminal with no load.

Confirm that the fan rotates high speed after few seconds.

Connect the 1.2 kohm/1W resistors between terminals COM-TH-1 and COM-TH-2 of P6401 respectively with no input signal.

Confirm that the fan rotates high speed after few seconds.



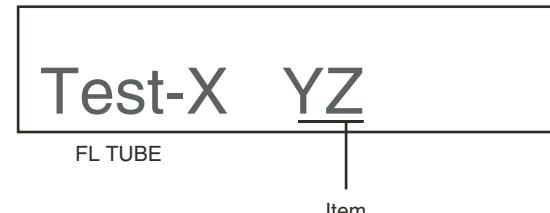
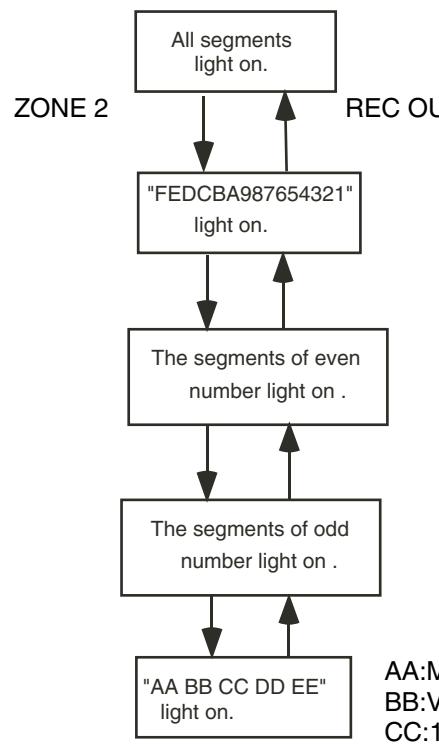
ADJUSTMENT AND CONFIRMATION PROCEDURES 3

Test Mode

1. Turn POWER button on.
2. Press and hold down CD button, then press DISPLAY and STANDBY/ON buttons.
3. After "TEST-1" on the FL tube is displayed, press CD button to set the unit to the test mode of FL tube.

Note: VIDEO 1:TEST-1 VIDEO 2 :TEST-2 ZONE2: UP
VIDEO 3 :TEST-3 VIDEO 4:TEST-4 REC OUT: DOWN

Test mode of FL tube



Confirmation of voltage sensor

1. Set the unit to TEST-3-4.
2. Apply the signal 1kHz, -15dBV to the MULTI-CH input. Confirm that the FM STEREO is displayed. Confirm the all channels except SUBWOFFER.
3. When connect the resistor 1.2 kohm/1 W between the terminals COM and TH1 of P6401, confirm that "MEMORY" light on.
Note: No input signal.
4. When change set the unit to "TEST-4-39,confirm that the speaker relays of RL6901 and RL6902 turn off.
Note: No input signal.

AA:Model "89":TX-DS898 "79":TX-DS797
BB:Video Mode "NS": NTSC "PL": PAL AUTO
CC:12V TRIGGER "TR": Available " " :No available
DD:RDS "RD": Available " " :No available
EE:Tuner band EU:Europe US: USA SA:Worldwide JP:Japan

Press POWER button
to finish the test mode of FL tube.

A

B

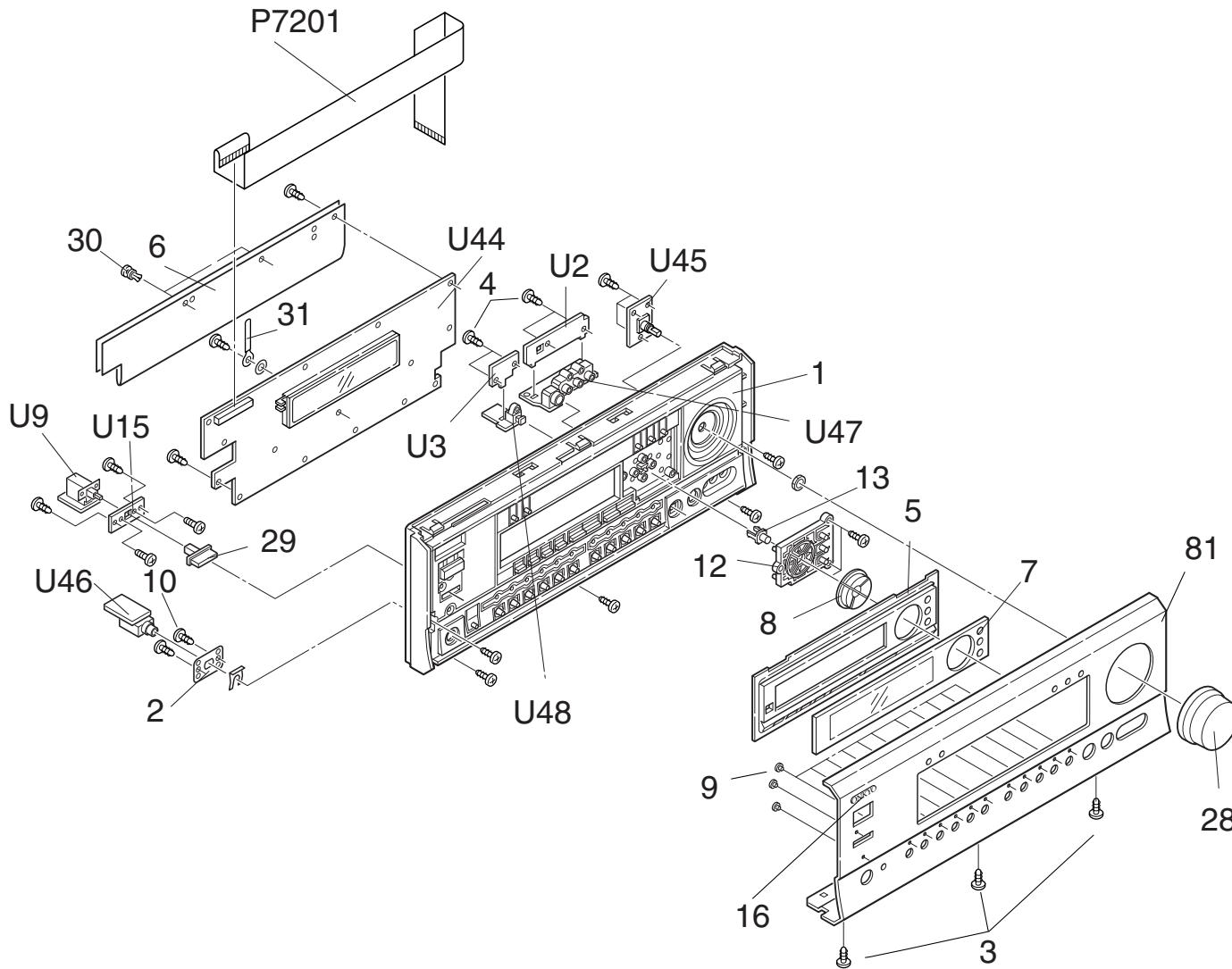
C

D

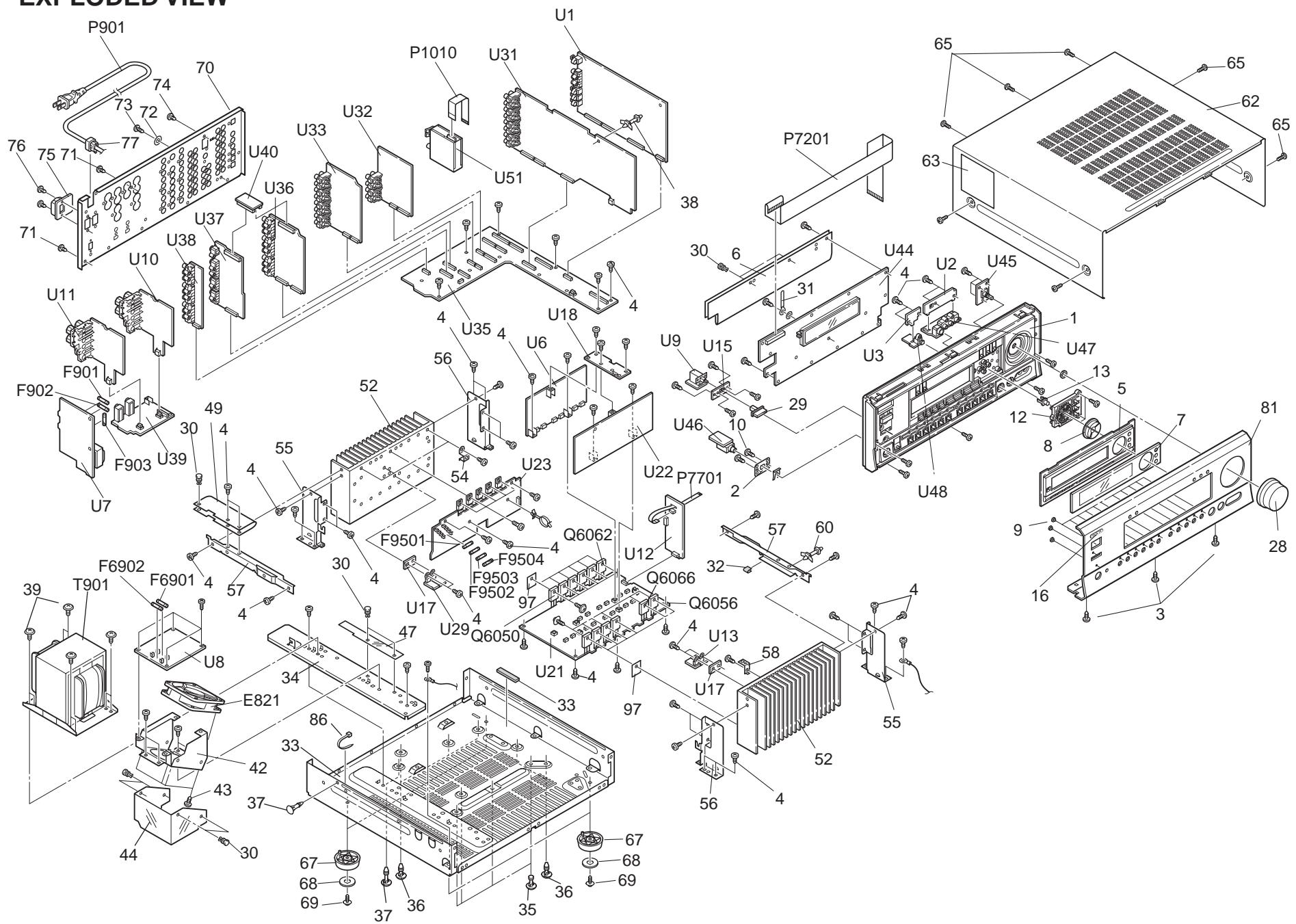
8

EXPLODED VIER

Front panel section



EXPLODED VIEW



EXPLODED VIEW-PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	27111248	Front bracket 	67	27175319A	Leg
	27111249	Front bracket <S>	68	28141332	Cushion
	27111250	Front bracket <G>	69	831430088	3TTW+8B(BC),Self-tapping screw
2	27141787	Retainer HP	70	27122906	Rear panel <D>
3	838430088	3TTB+8B(BC),Self-tapping screw		27122907	Rear panel <P>
4	838130088	3TTB+8B,Self-tapping screw		27122908	Rear panel <WT>
5	27215360	Decorative frame 		27122909	Rear panel <A>
	27215361	Decorative frame <S>		27122910	Rear panel <R>
	27215362	Decorative frame <G>		27122911	Rear panel <GT>
6	27150472	Shield plate, FFC	71	838430088	3TTB+8B(BC),Self-tapping screw
7	28191942	Clear plate 	72	87643010	W3*10F(BC),Flat washer
	28191943	Clear plate <S/G>	73	838930088	3TTB+8B(UN),Self-tapping screw
8	28325964A	Knob CL	74	838430068	3TTB+6B(BC),Self-tapping screw
9	28198778	Facet	75	27191130	△ Holder, outlet <R>
10	82143010	3P+10FN(BC),Pan head screw	76	838440089	4TTB+8C(BC),Self-tapping screw <O>
12	28325965	Knob, tuning	77	27300750	△ Bushing cord
13	28330142	Cap, tuning	81	27212349A	Front panel <D/WT/A>
14	27270375	Spacer		27212350A	Front panel <P>
16	28135244	Badge 		27212351A	Front panel <S>
	28135245	Badge <G/S>		27212352A	Front panel <G>
28	28325898	Knob, volume 	86	260208	Wire tie
	28325899	Knob, volume <S>	97	223025	AC262,Isolated sheet
	28325900	Knob, volume <G>	E821	24502310	D09T-24PG10(EX),Fan
29	28325497A	Knob, power 	F6901,F6902	252199	10A-UL, Fuse <D>
	28325547A	Knob, power <S>		252100	10A-EAK, Fuse <O>
	28325499A	Knob, power <G>	F901	252199	△ 10A-UL, Fuse <D/WT/WR>
30	880016	P3035B,Plastic rivet	F902	252077,	△ 4A-SE-EAK,
31	27255004	CS-1U,Clip		252243 or	△ 4A-SE-TL250V or
32	29110083	Tape, cloth		252277	△ 4A-SE-TL250V,Fuse <O>
33	27100408	Chassis	F903	252075,	△ 2.5A-SE-EAK,
34	27130870	Bracket PT		252241 or	△ 2.5A-SE-TL250V or
35	27190965	Holder		252275	△ 2.5A-SE-TL250V,Fuse <O>
36	27190693A	KGLS-6RF,Holder	F9501,F9502	252160 or	△ 2.5A-UL/T-237 or
37	27190266	KGLS-12RF,Holder		252254	△ 2.5A-T/UL-ST2,Fuse <D>
38	27190164	KGLS-14S,Holder		252075,	△ 2.5A-SE-EAK,
39	830440089	4TTC+8C(BC),Self-tapping screw		252241 or	△ 2.5A-SE-TL250V or
41	28141484	Cushion		252275	△ 2.5A-SE-TL250V,Fuse <O>
42	27141797	Retainer, fan	F9503,F9504	252158 or	△ 1.6A-UL/T-237 or
43	838450108	5TTB+10B(BC),Self-tapping screw		252252	△ 1.6A-T/UL-ST2,Fuse <D>
44	27150470	Shield plate, fan		252073 or	△ 1.6A-SE-EAK or
47	27150471	Shield plate, amp.		252239	△ 1.6A-SE-TL250V,Fuse <O>
49	27150474	Shield plate, wire	P1010	2047151012	NCFC7-151012,Flat cable
52	27160489	Heat sink	P7201	2047335512	NCFC7-335512,Flat cable
53	801433	3SMS8W.SW+14B(BC),Special screw	P7701	2047051012	NCFC7-051012,Flat cable
54	27141681	Retainer, PCB	P901	253279HIT or	△ AS-UC-2#18 or
55	27141798	Retainer, heat sink R		253280VOL	△ AS-UC-2#18,Power supply cord <D>
56	27141799	Retainer, heat sink L		253233KAW	△ AS-CEE-2,Power supply cord <P/WT/GT>
57	27130869	Bracket, heat sink		253197HIT	△ AS-SAA,Power supply cord <A>
58	27130745	Bracket		253267KAW,	△ AS-CCEE,
60	27190470	KGLS-18S,Holder		253285HIT or	△ AS-CCEE or
61	838430107	3TTB+10S(BC),Self-tapping screw		253286VOL	△ AS-CCEE,Power supply cord <R>
62	28184817	Top cover 	Q6050-Q6054	2202823 or	* 2SC5200-O or
	28184818	Top cover <S>	Q6056	2202822	* 2SC5200-R,Transistor
	28184819	Top cover <G>	Q6060-Q6064	2202813 or	* 2SA1943-O or
63	29362959	Label	Q6066	2202812	* 2SA1943-R,Transistor
65	838430088	3TTB+8B(BC),Self-tapping screw 			
	838930088	3TTB+8B(UN),Self-tapping screw <S/G>			

CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (HFE) as the original type.

NOTE: THE COMPONENTS IDENTIFIED BY MARK △ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

EXPLODED VIEW-PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
T901	2301536	△ NPT-1421D,Power transformer <D>	U15	1A906541-1N	NAETC-7241-1N,PC board for holder <D>
	2301537	△ NPT-1421P,Power transformer <P/A>		1A906541-1O	NAETC-7241-1O,PC board for holder <P>
	2301538	△ NPT-1421DG,Power transformer <WT/R/GT>		1A906541-1P	NAETC-7241-1P,PC board for holder <R>
U1	1A906526-1N	NADG-7226-1N, Main circuit PC board ass'y <D>		1A906541-1Q	NAETC-7241-1Q,PC board for holder <WT>
	1A906526-1O	NADG-7226-1O, Main circuit PC board ass'y <P>		1A906541-1R	NAETC-7241-1R,PC board for holder <GT>
	1A906526-1R	NADG-7226-1R, Main circuit PC board ass'y <WT/A/R/GT>		1A906541-1U	NAETC-7241-1U,PC board for holder <A>
U6	1A906532-1N	NAAF-7232-1N, F/C driver circuit PC board ass'y <D>	U17	1A906543-1N	NAETC-7243-1N,PC board for holder <D>
	1A906532-1O	NAAF-7232-1O, F/C driver circuit PC board ass'y <P>		1A906543-1O	NAETC-7243-1O,PC board for holder <P>
	1A906532-1P	NAAF-7232-1P, F/C driver circuit PC board ass'y <R>		1A906543-1P	NAETC-7243-1P,PC board for holder <R>
	1A906532-1Q	NAAF-7232-1Q, F/C driver circuit PC board ass'y <WT>		1A906543-1Q	NAETC-7243-1Q,PC board for holder <WT>
	1A906532-1R	NAAF-7232-1R, F/C driver circuit PC board ass'y <GT>		1A906543-1R	NAETC-7243-1R,PC board for holder <GT>
U7	1A906532-1U	NAAF-7232-1U, F/C driver circuit PC board ass'y <A>		1A906543-1U	NAETC-7243-1U,PC board for holder <A>
	1A906533-1N	NAPS-7233-1N,Primary circuit PC board ass'y <D>	U18	1A906544-1N	NAETC-7244-1N,Ground PC board ass'y <D>
	1A906533-1O	NAPS-7233-1O,Primary circuit PC board ass'y <P>		1A906544-1O	NAETC-7244-1O,Ground PC board ass'y <P>
	1A906533-1P	NAPS-7233-1P,Primary circuit PC board ass'y <R>		1A906544-1P	NAETC-7244-1P,Ground PC board ass'y <R>
U8	1A906533-1Q	NAPS-7233-1Q,Primary circuit PC board ass'y <WT>		1A906544-1Q	NAETC-7244-1Q,Ground PC board ass'y <WT>
	1A906533-1R	NAPS-7233-1R,Primary circuit PC board ass'y <GT>		1A906544-1R	NAETC-7244-1R,Ground PC board ass'y <GT>
	1A906533-1U	NAPS-7233-1U,Primary circuit PC board ass'y <A>		1A906544-1U	NAETC-7244-1U,Ground PC board ass'y <A>
	1A906534-1N	NAPS-7234-1N,Rectifier circuit PC board ass'y <D>	U21	1A906550-2A	NAAF-7250-2A,Power amplifier driver PC board ass'y <D>
U9	1A906534-1O	NAPS-7234-1O,Rectifier circuit PC board ass'y <P>		1A906550-2B	NAAF-7250-2B,Power amplifier driver PC board ass'y <O>
	1A906534-1P	NAPS-7234-1P,Rectifier circuit PC board ass'y <R>		1A906551-2A	NAAF-7251-2A,Power amplifier driver PC board ass'y <D>
	1A906534-1Q	NAPS-7234-1Q,Rectifier circuit PC board ass'y <WT>		1A906551-2B	NAAF-7251-2B,Power amplifier driver PC board ass'y <O>
	1A906534-1R	NAPS-7234-1R,Rectifier circuit PC board ass'y <GT>	U23	1A906552-2A	NAPS-7252-2A,Power supply circuit PC board ass'y <D>
U10	1A906534-1U	NAPS-7234-1U,Rectifier circuit PC board ass'y <A>		1A906552-2B	NAPS-7252-2B,Power supply circuit PC board ass'y <O>
	1A906535-1N	NASW-7235-1N,Power switch PC board ass'y <D>	U29	1A906558-2A	NAETC-7258-2A, Thermal detector circuit PC board ass'y <D>
	1A906535-1O	NASW-7235-1O,Power switch PC board ass'y <P>		1A906558-2B	NAETC-7258-2B, Thermal detector circuit PC board ass'y <O>
	1A906535-1P	NASW-7235-1P,Power switch PC board ass'y <R>	U31	1A906562-1N	NAAF-7262-1N,Preamplifier circuit PC board ass'y <D>
U11	1A906535-1Q	NASW-7235-1Q,Power switch PC board ass'y <WT>		1A906562-1O	NAAF-7262-1O,Preamplifier circuit PC board ass'y <P>
	1A906535-1R	NASW-7235-1R,Power switch PC board ass'y <GT>		1A906562-1P	NAAF-7262-1P,Preamplifier circuit PC board ass'y <PT/A/R/GT>
	1A906535-1U	NASW-7235-1U,Power switch PC board ass'y <A>	U32	1A906563-1N	NAAF-7263-1N,Audio terminal PC board ass'y <D>
	1A906536-1N	NAETC-7236-1N,Speaker terminal F/C PC board ass'y <D>		1A906563-1O	NAAF-7263-1O,Audio terminal PC board ass'y <P>
U12	1A906536-1O	NAETC-7236-1O,Speaker terminal F/C PC board ass'y <P>	U33	1A906563-1P	NAAF-7263-1P,Audio terminal PC board ass'y <PT/A/R/GT>
	1A906536-1P	NAETC-7236-1P,Speaker terminal F/C PC board ass'y <R>		1A906564-1N	NAAF-7264-1N,Video terminal PC board ass'y <D>
	1A906536-1Q	NAETC-7236-1Q,Speaker terminal F/C PC board ass'y <WT>		1A906564-1O	NAAF-7264-1O,Video terminal PC board ass'y <P>
	1A906536-1R	NAETC-7236-1R,Speaker terminal F/C PC board ass'y <GT>	U35	1A906564-1P	NAAF-7264-1P,Video terminal PC board ass'y <PT/A/R/GT>
U13	1A906536-1U	NAETC-7236-1U,Speaker terminal F/C PC board ass'y <A>		1A906567-1N	NAAR-7267-1N,Connector PC board ass'y, <D>
	1A906537-1N	NAETC-7237-1N,Speaker terminal SR/SB PC board ass'y <D>		1A906567-1O	NAAR-7267-1O,Connector PC board ass'y, <O>
	1A906537-1O	NAETC-7237-1O,Speaker terminal SR/SB PC board ass'y <P>		1A906568-1N	NAVD-7268-1N,Composite video circuit PC board ass'y <D>
	1A906537-1P	NAETC-7237-1P, Speaker terminal SR/SB PC board ass'y <R>	U37	1A906568-1O	NAVD-7268-1O,Composite video circuit PC board ass'y <O>
U14	1A906537-1Q	NAETC-7237-1Q, Speaker terminal SR/SB PC board ass'y <WT>		1A906569-1N	NAVD-7269-1N,,S video circuit PC board ass'y <D>
	1A906537-1R	NAETC-7237-1R, Speaker terminal SR/SB PC board ass'y <GT>		1A906569-1O	NAVD-7269-1O,,S video circuit PC board ass'y <O>
	1A906537-1U	NAETC-7237-1U, Speaker terminal SR/SB PC board ass'y <A>	U38	1A906570-1N	NAVD-7270-1N,Component video terminal PC board ass'y <D>
	1A906538-1N	NAETC-7238-1N,Fan drive circuit PC board ass'y <D>		1A906570-1O	NAVD-7270-1O,Component video terminal PC board ass'y <O>
U15	1A906538-1O	NAETC-7238-1O,Fan drive circuit PC board ass'y <P>	U39	1A906572-1N	NAETC-7272-1N,RI terminal PC board ass'y <D>
	1A906538-1P	NAETC-7238-1P,Fan drive circuit PC board ass'y <R>		1A906572-1O	NAETC-7272-1O,RI terminal PC board ass'y <O>
	1A906538-1Q	NAETC-7238-1Q,Fan drive circuit PC board ass'y <WT>	U40	1A906573-1N	NAETC-7273-1N,PC board for holder <D>
	1A906538-1R	NAETC-7238-1R,Fan drive circuit PC board ass'y <GT>		1A906573-1O	NAETC-7273-1O,PC board for holder <O>
U16	1A906538-1U	NAETC-7238-1U,Fan drive circuit PC board ass'y <A>	U44	1A906530-1A	NADIS-7330-1A,Display circuit PC board ass'y <D>
	1A906539-1N	NAETC-7239-1N,Thermal detector circuit PC board ass'y <D>		1A906530-1B	NADIS-7330-1B,Display circuit PC board assay <P>
	1A906539-1O	NAETC-7239-1O,Thermal detector circuit PC board ass'y <P>		1A906530-1C	NADIS-7330-1C,Display circuit PC board ass'y <A>
	1A906539-1P	NAETC-7239-1P,Thermal detector circuit PC board ass'y <R>		1A906530-1D	NADIS-7330-1D,Display circuit PC board ass'y <WT>
U17	1A906539-1Q	NAETC-7239-1Q,Thermal detector circuit PC board ass'y <WT>	U44	1A906530-1E	NADIS-7330-1E,Display circuit PC board ass'y <G> <GT/A>
	1A906539-1R	NAETC-7239-1R,Thermal detector circuit PC board ass'y <GT>		1A906530-1F	NADIS-7330-1F,Display circuit PC board ass'y <G> <WT/R>
	1A906539-1U	NAETC-7239-1U,Thermal detector circuit PC board ass'y <A>		1A906530-1G	NADIS-7330-1G,Display circuit PC board ass'y <S> <P>

NOTE: THE COMPONENTS IDENTIFIED BY MARK △
ARE CRITICAL FOR RISK OF FIRE AND
ELECTRIC SHOCK. REPLACE ONLY WITH
PART NUMBER SPECIFIED.

EXPLODED VIEW-PARTS LIST 3

REF. NO.	PART NO.	DESCRIPTION
U45	1A906531-1A	NASW-7331-1A,Volume PC board ass'y <D>
	1A906531-1B	NASW-7331-1B,Volume PC board assay <P>
	1A906531-1C	NASW-7331-1C,Volume PC board ass'y <A>
	1A906531-1D	NASW-7331-1D,Volume PC board ass'y <WT>
	1A906531-1E	NASW-7331-1E,Volume PC board ass'y <G> <GT/A>
	1A906531-1F	NASW-7331-1F,Volume PC board ass'y <G> <WT/R>
	1A906531-1G	NASW-7331-1G,Volume PC board ass'y <S> <P>
U46	1A906332-1A	NAETC-7332-1A,Headphone terminal PC board ass'y <D>
	1A906332-1B	NAETC-7332-1B,Headphone terminal PC board assay <P>
	1A906332-1C	NAETC-7332-1C,Headphone terminal PC board ass'y <A>
	1A906332-1D	NAETC-7332-1D,Headphone terminal PC board ass'y <WT>
	1A906332-1E	NAETC-7332-1E,Headphone terminal PC board ass'y <G> <GT/A>
	1A906332-1F	NAETC-7332-1F,Headphone terminal PC board ass'y <G> <WT/R>
	1A906332-1G	NAETC-7332-1G,Headphone terminal PC board ass'y <S> <P>
U47	1A906527-1N	NAAF-7227-1N,Front video PC board ass'y <D>
	1A906527-1O	NAAF-7227-1O,Front video PC board ass'y <P>
	1A906527-1R	NAAF-7227-1P,Front video PC board ass'y <WT/A/GT/R>
U48	1A906528-1N	NADG-7228-1N,Front video 2 PC board ass'y <D>
	1A906528-1O	NADG-7228-1O,Front video 2 PC board ass'y <P>
	1A906528-1R	NADG-7228-1P,Front video 2 PC board ass'y <WT/A/GT/R>
U51	240138A or	ENG06501QR or
	240134A	TFCE1U114B,Tuner unit <D>
	240139A or	ENG07501QR or
	240135	TFCE1E512A,Tuner unit <P/A/WT/GT/R>

NOTE: : Black model only

<S>: Silver model only

<G>: Golden model only

<D>: 120V model only

<P>: European model only

<WT>: Worldwide model only

<GT>: 220V model only

<A>: Australian model only

<R>: Chinese model only

<O>: Except 120V model

A

B

C

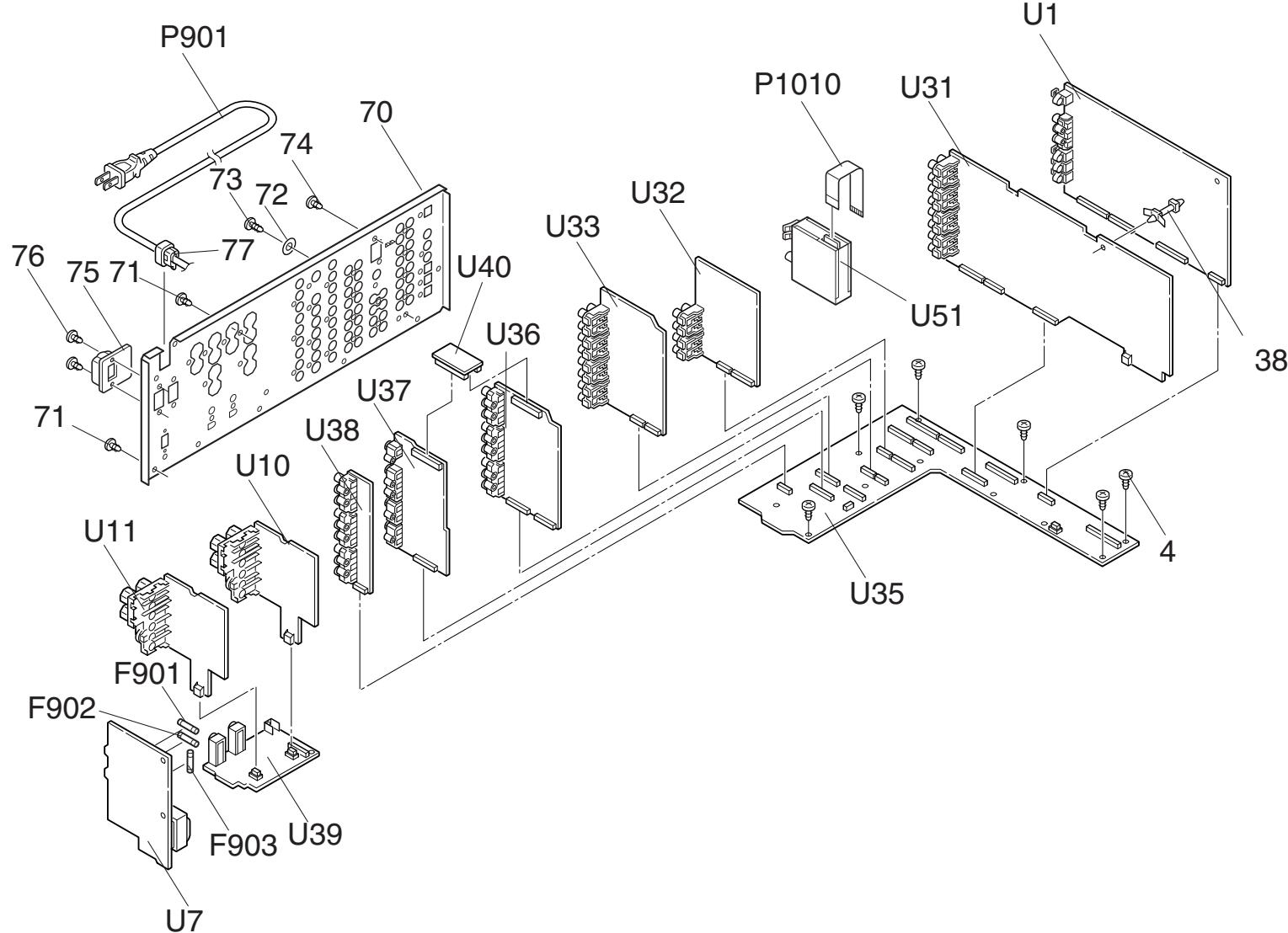
D

E

EXPLODED VIER

Rear panel section

1



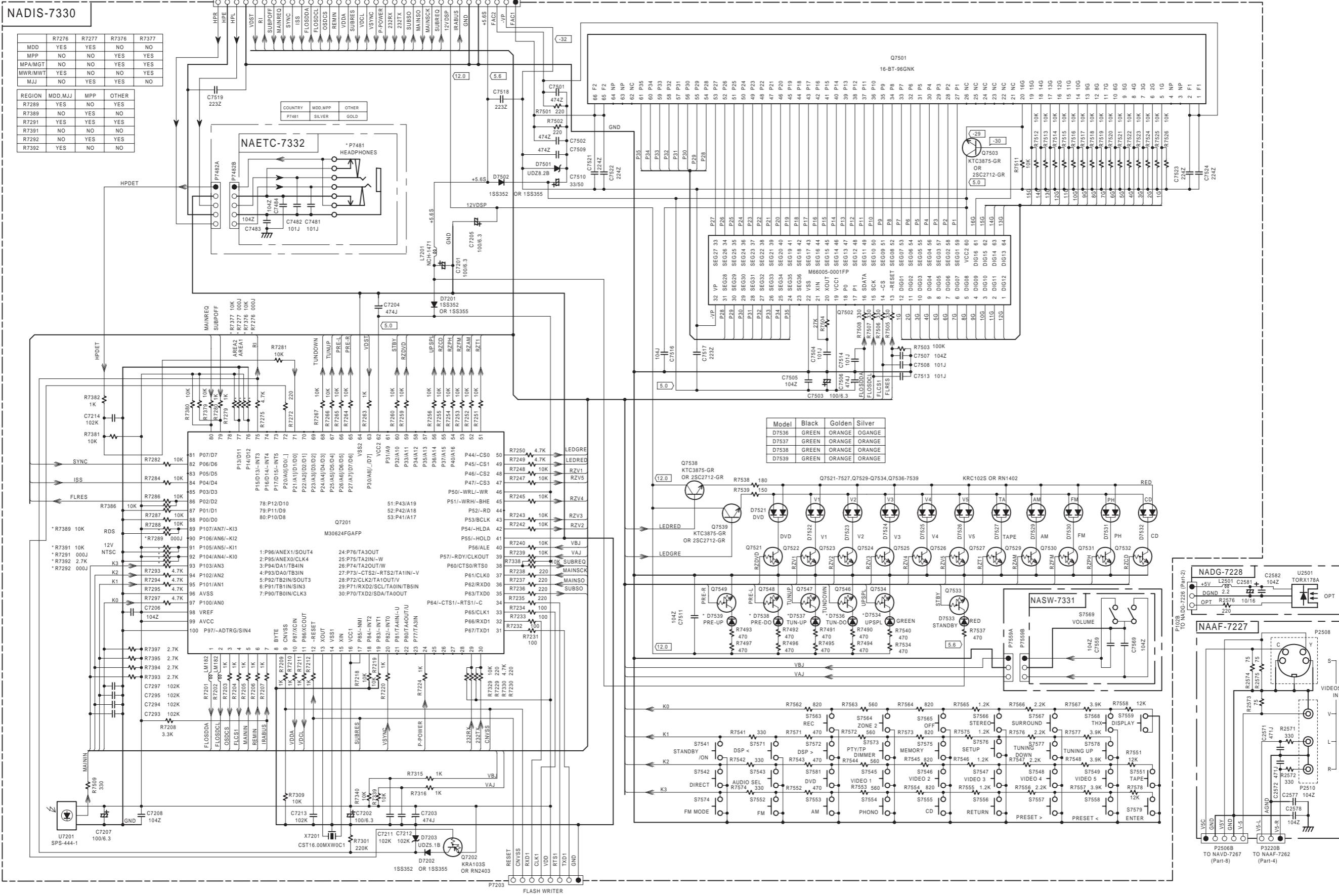
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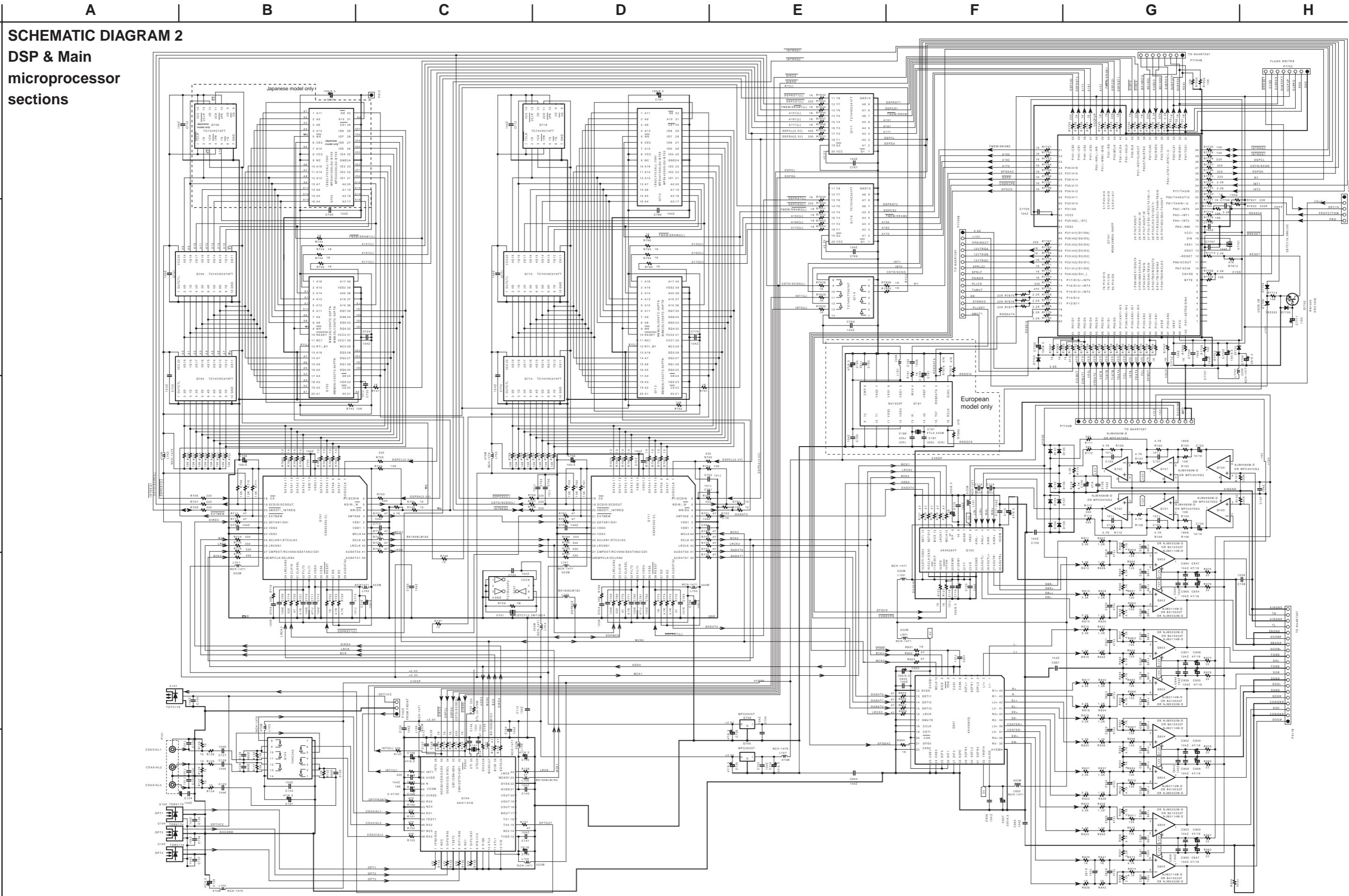
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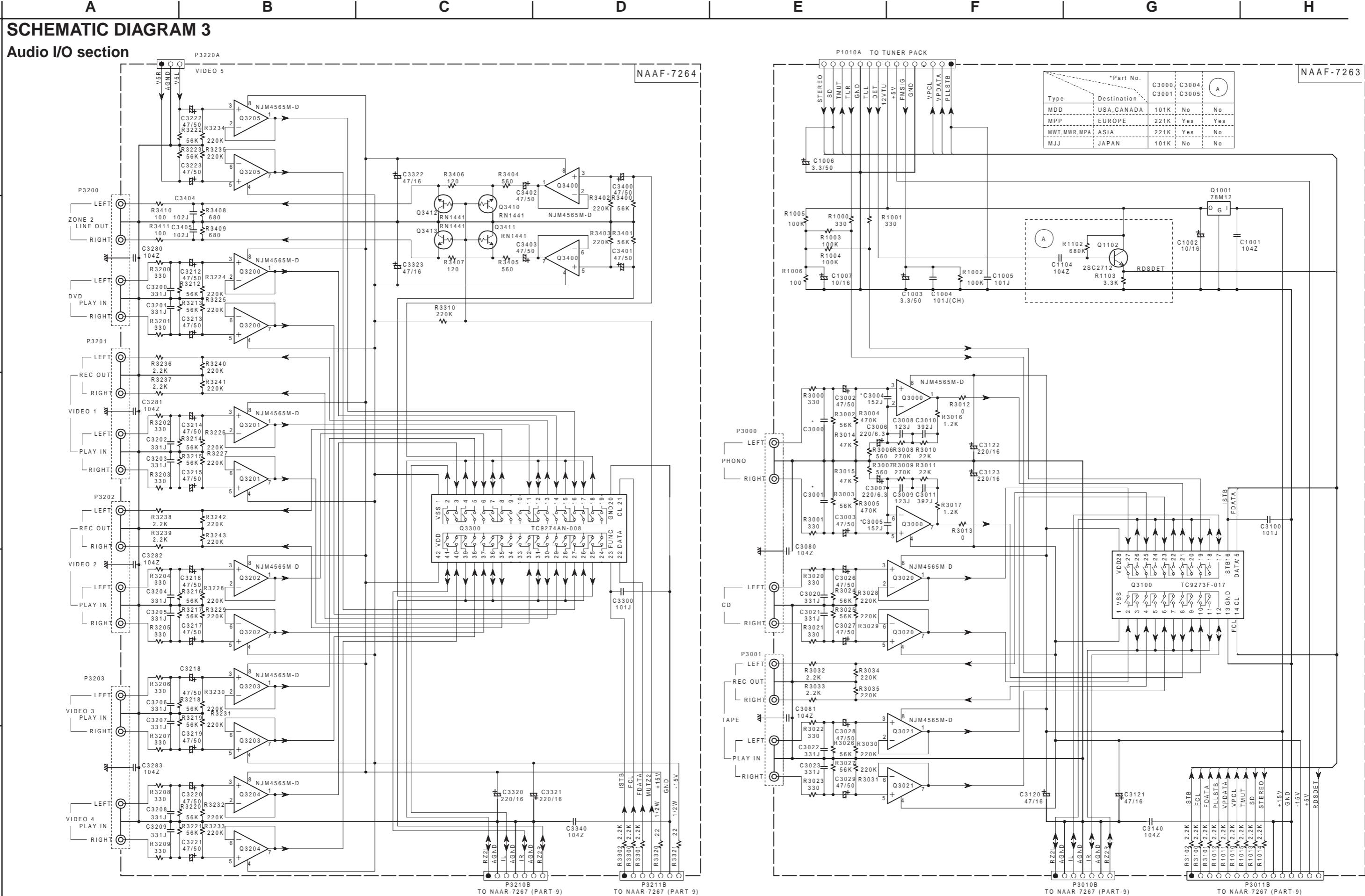
4

SCHEMATIC DIAGRAM 1

Display section

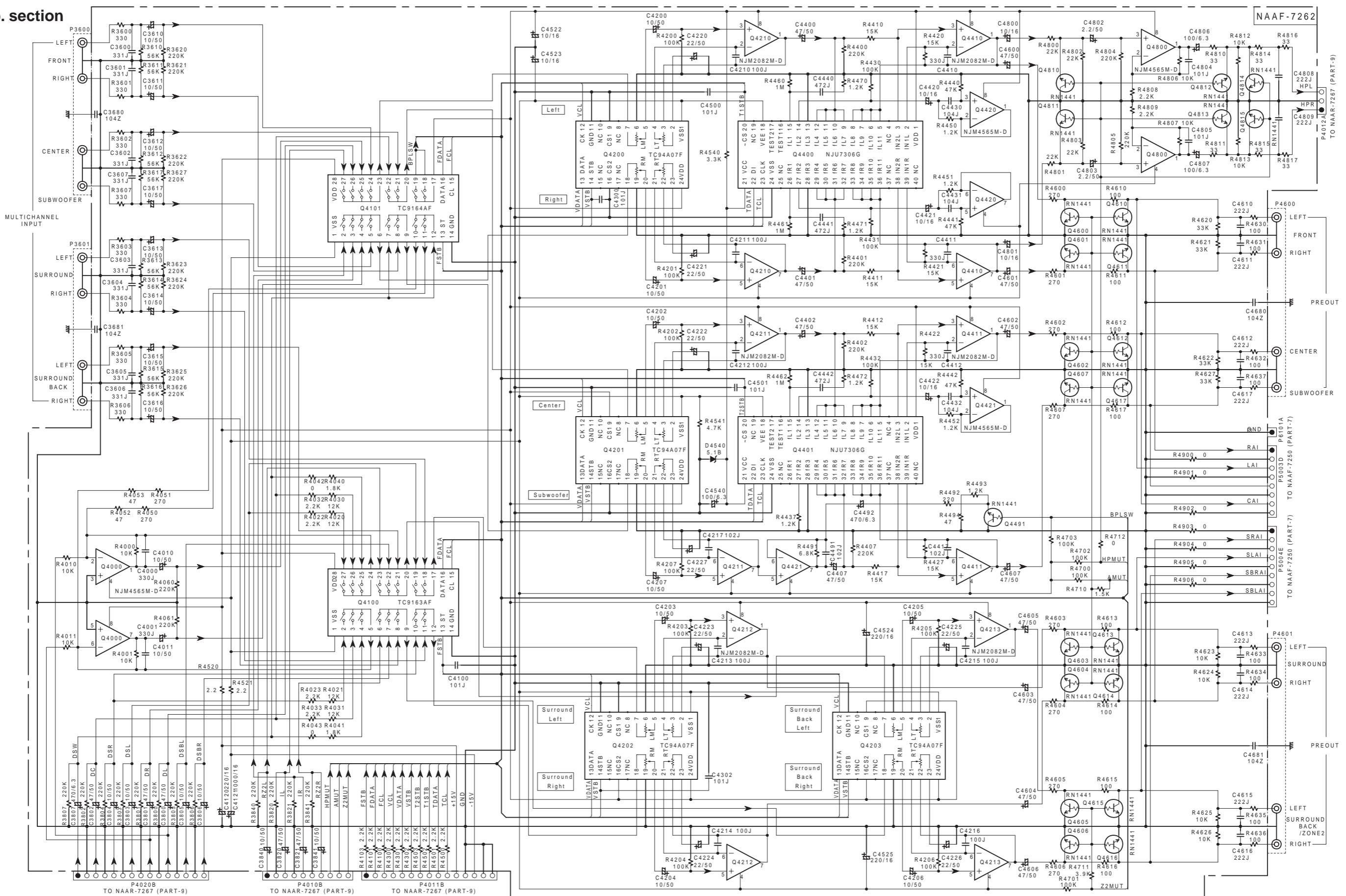






SCHEMATIC DIAGRAM 4

Preamp. section



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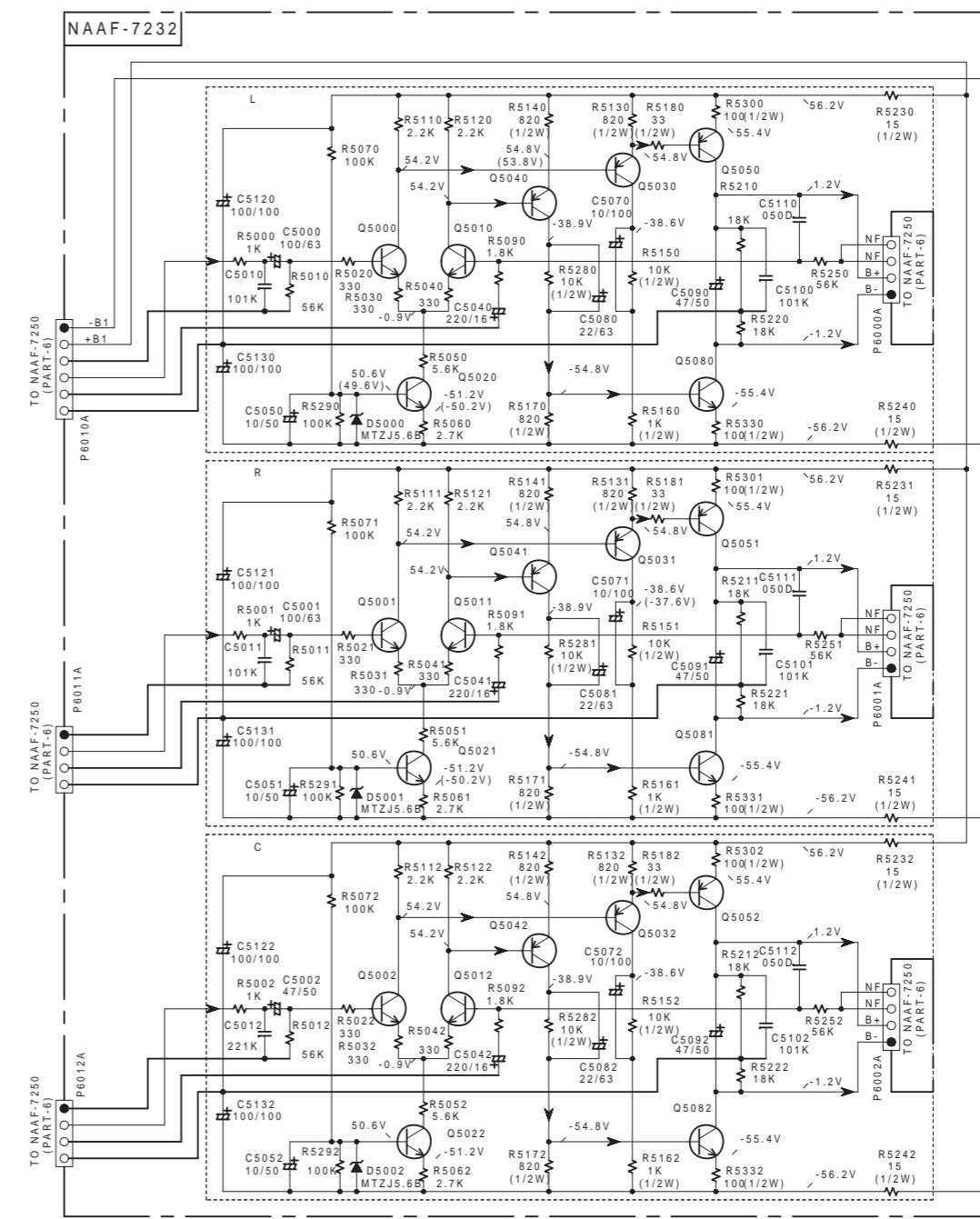
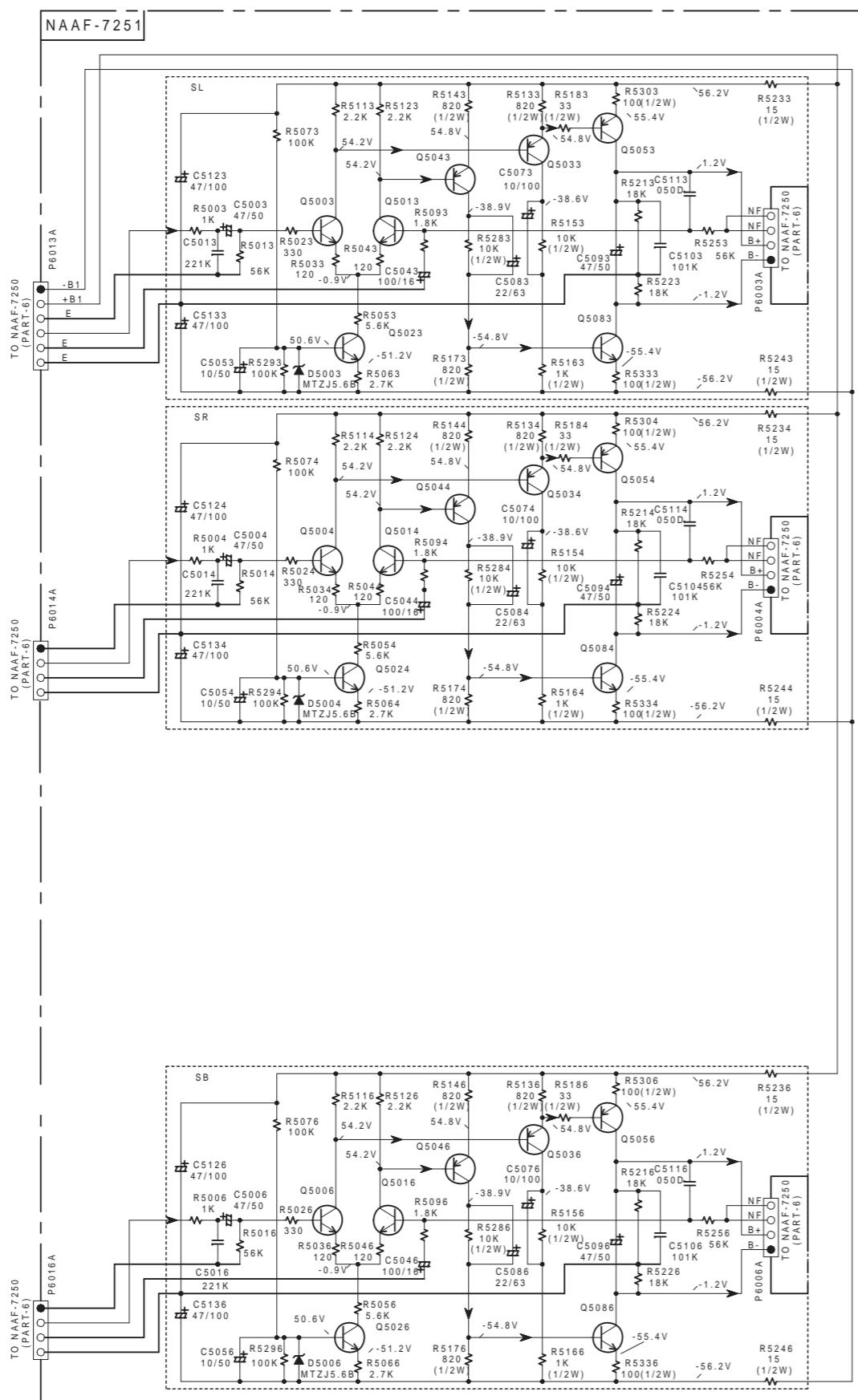
F

G

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SCHEMATIC DIAGRAM 5

Power amp.section

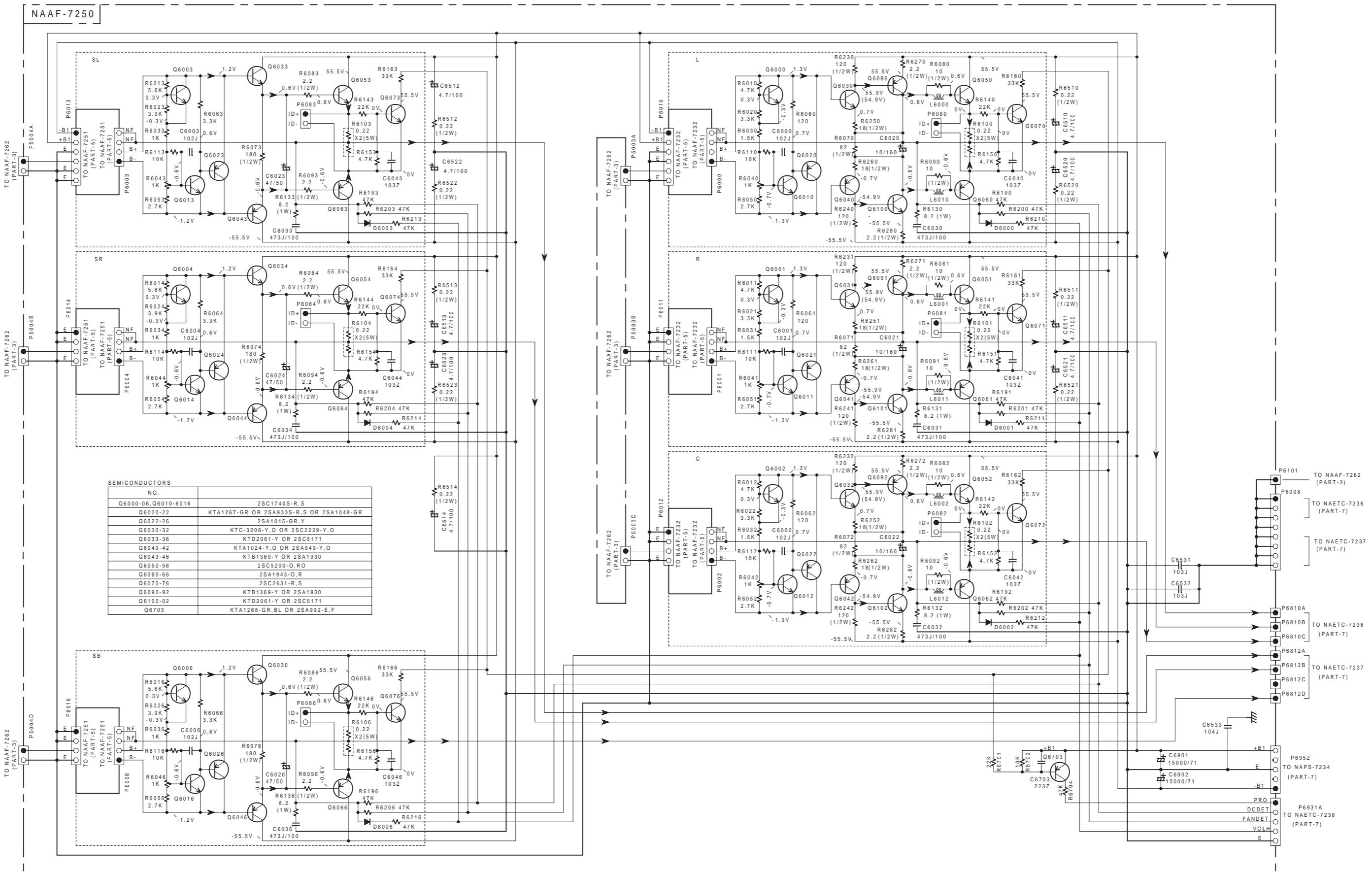


SEMICONDUCTORS	
NO.	
Q5000-06, 5010-16	KTC3200-BL OR 2SC1775A-E,F OR 2SC1845-E
Q5020-26	KTC3200-BL OR 2SC1775A-E,F OR 2SC1845-E
Q5030-36, 5040-46, 5050-56, 5070-76	KTA1024-Y,O OR 2SA949-Y,O
Q5060-66, 5080-86	KTC3206-Y,O OR 2SC2229-Y,O

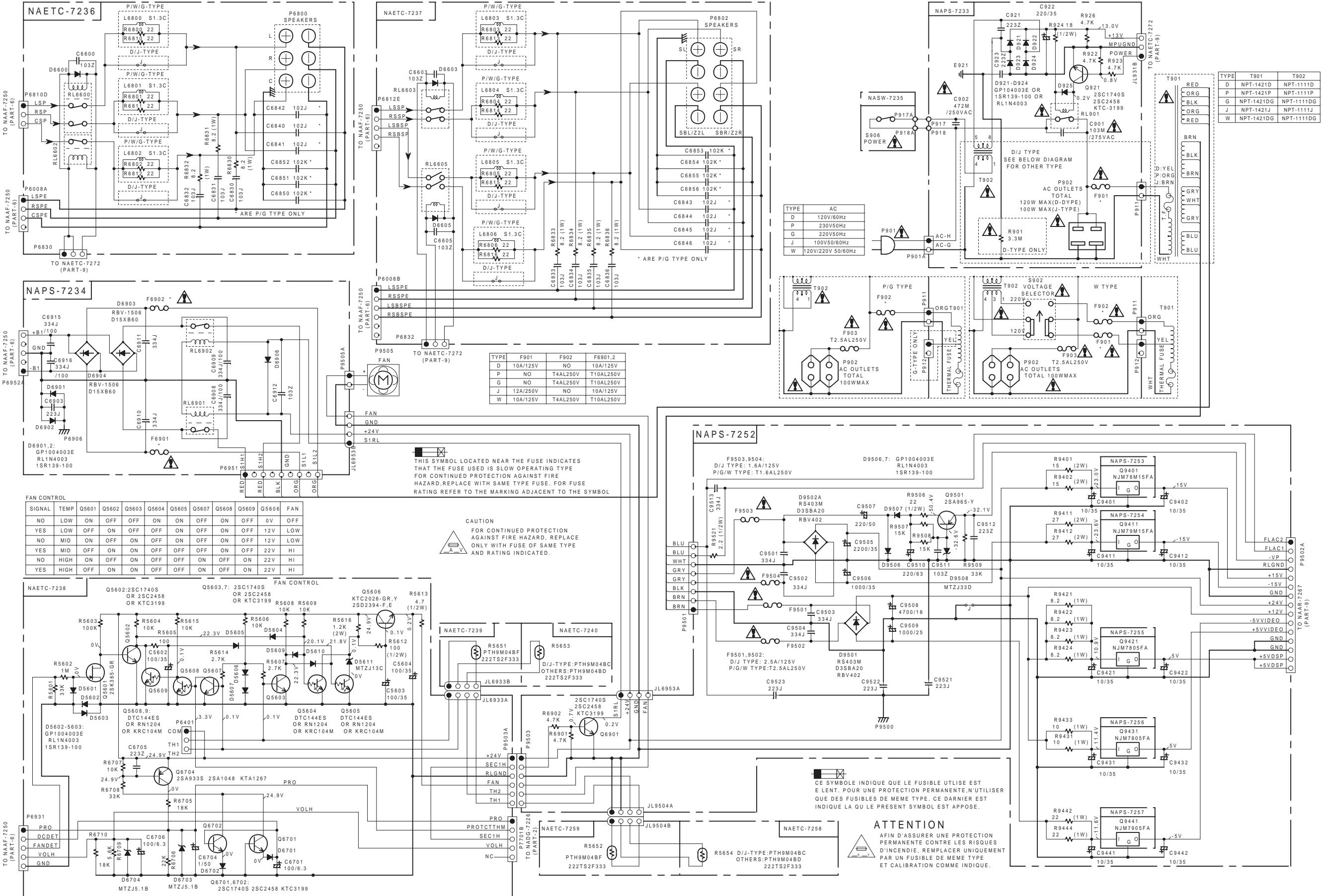
A

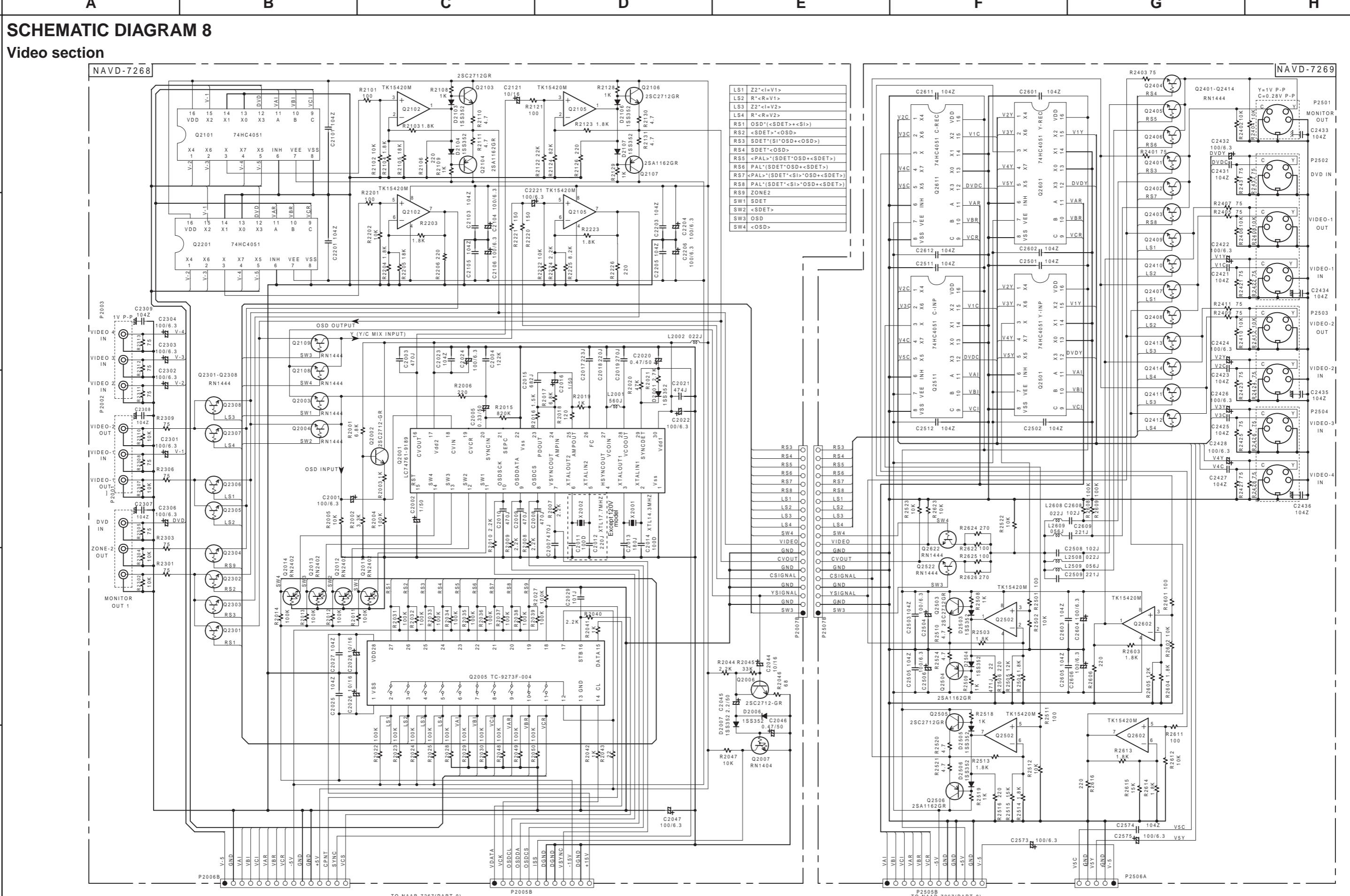
H

SCHEMATIC DIAGRAM 6 **Power amplifier section 2**



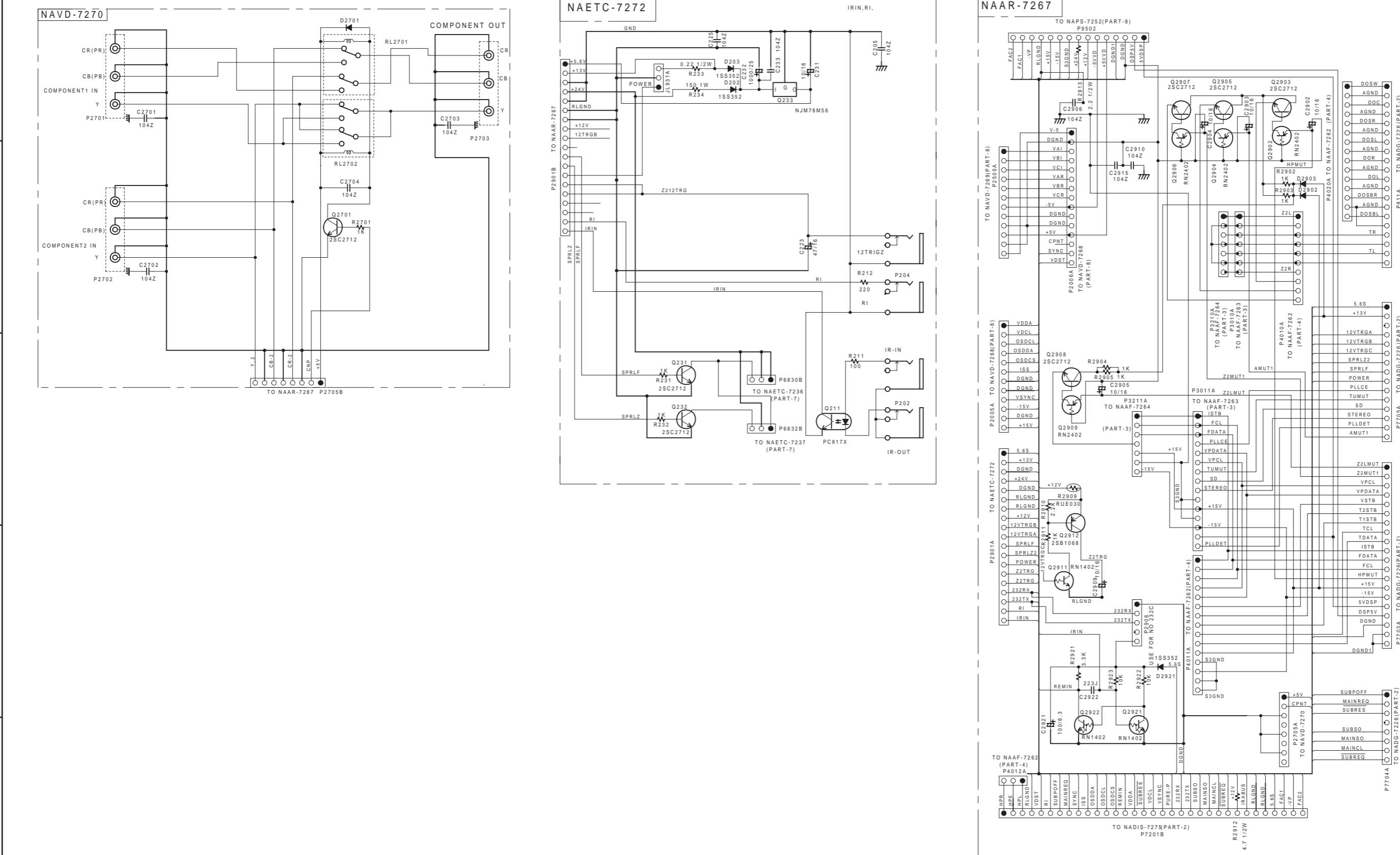
SCHEMATIC DIAGRAM 7 Power supply, Fan control & Speaker terminal sections





SCHEMATIC DIAGRAM 9

Component video and mother sections



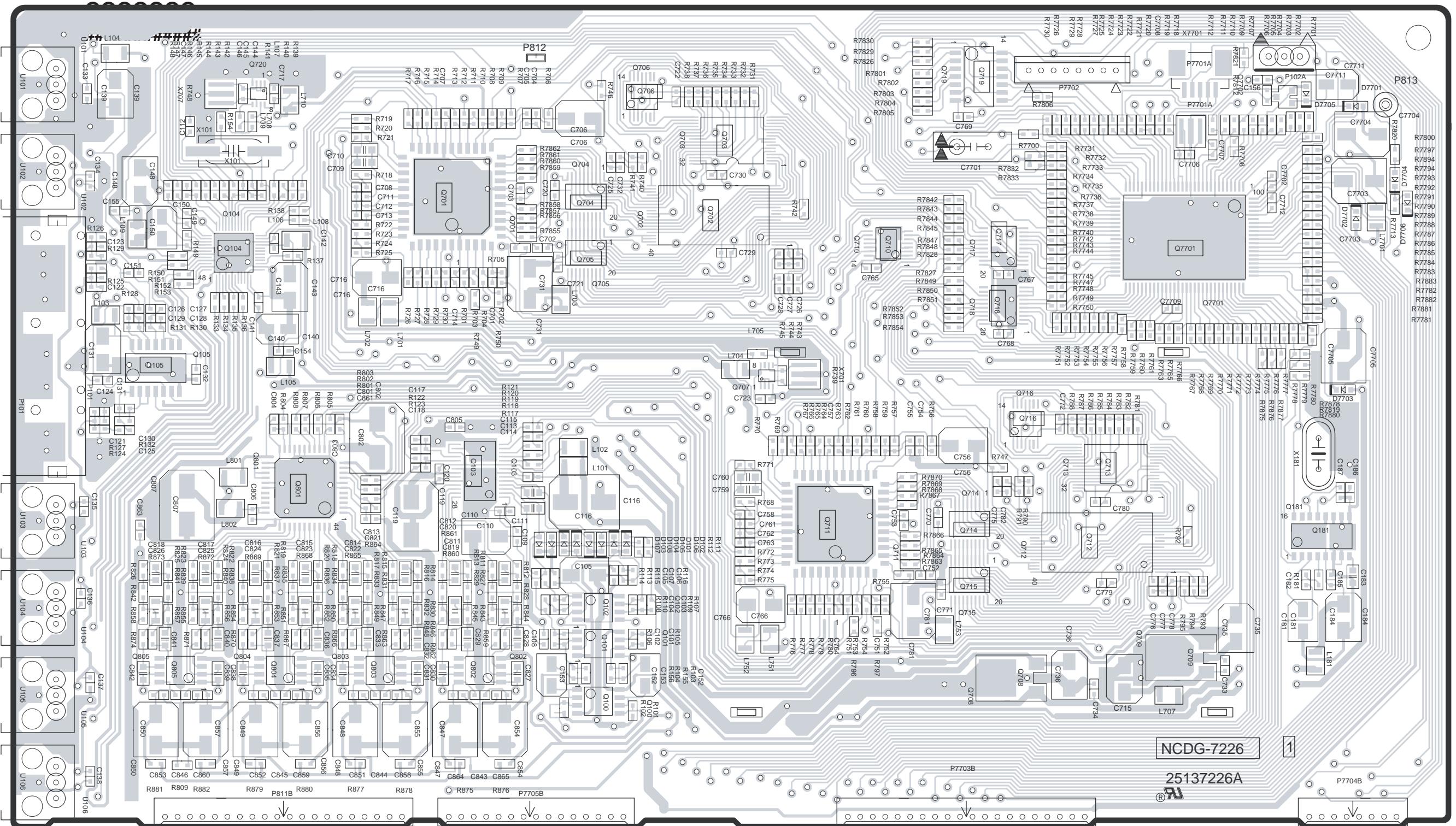
A

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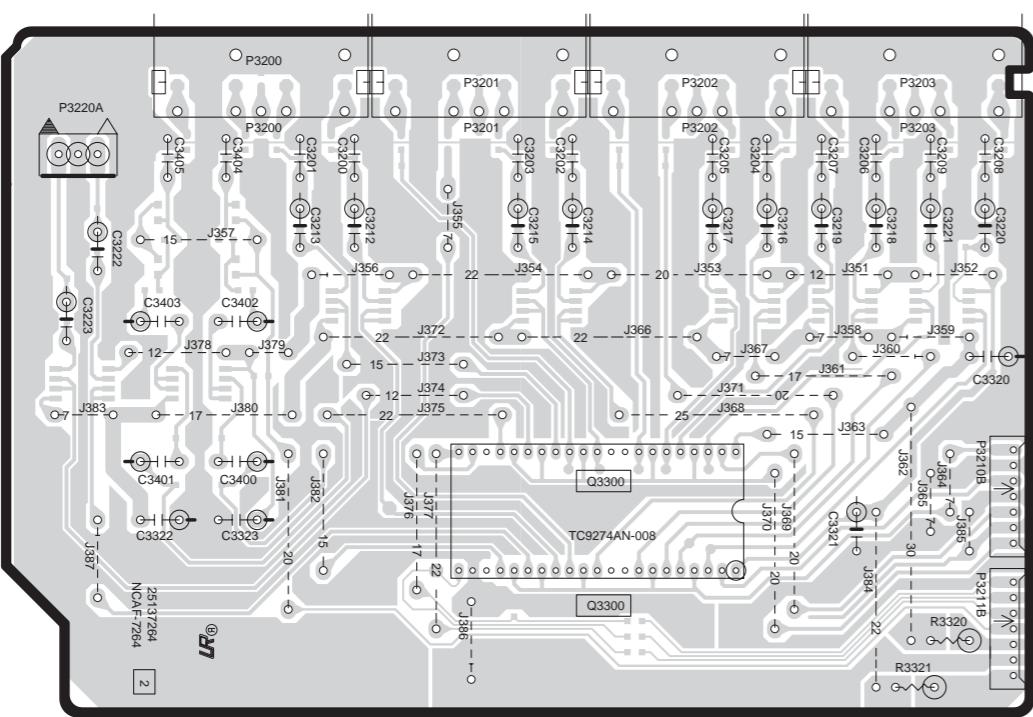
PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE B 2

Soldering side A: Parts & Patterns Soldering side B: Patterns

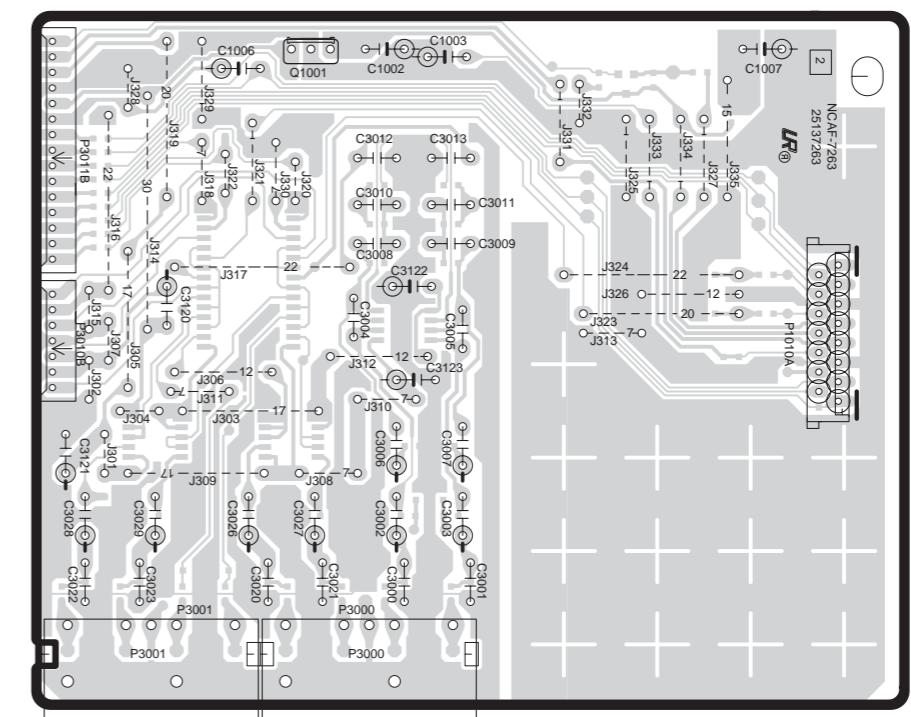


Main circuit PC board

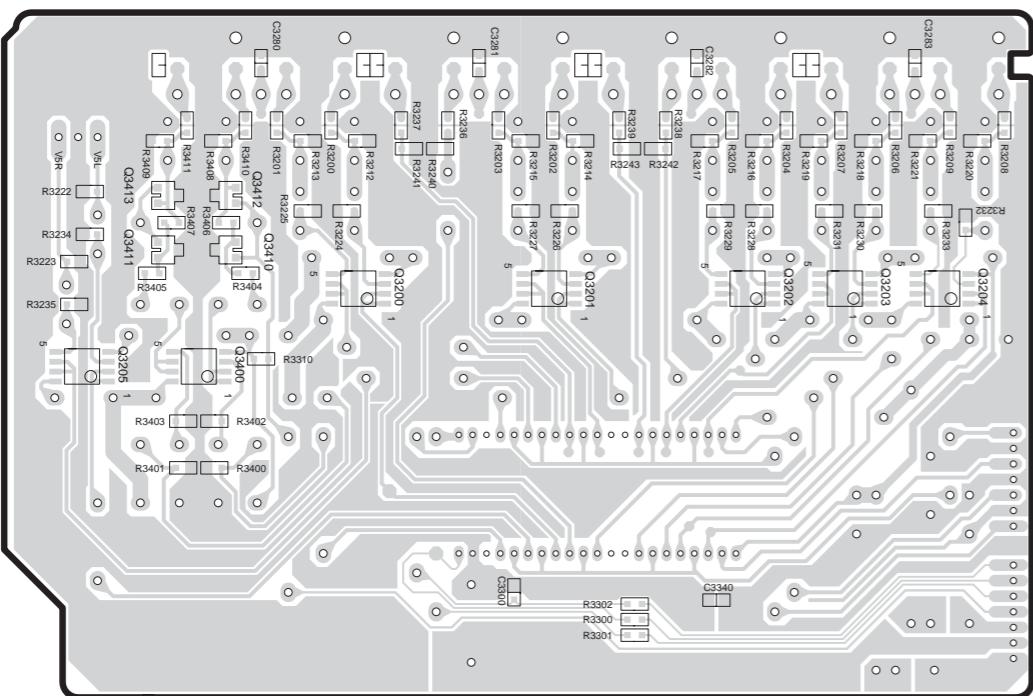
PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 3



Component side

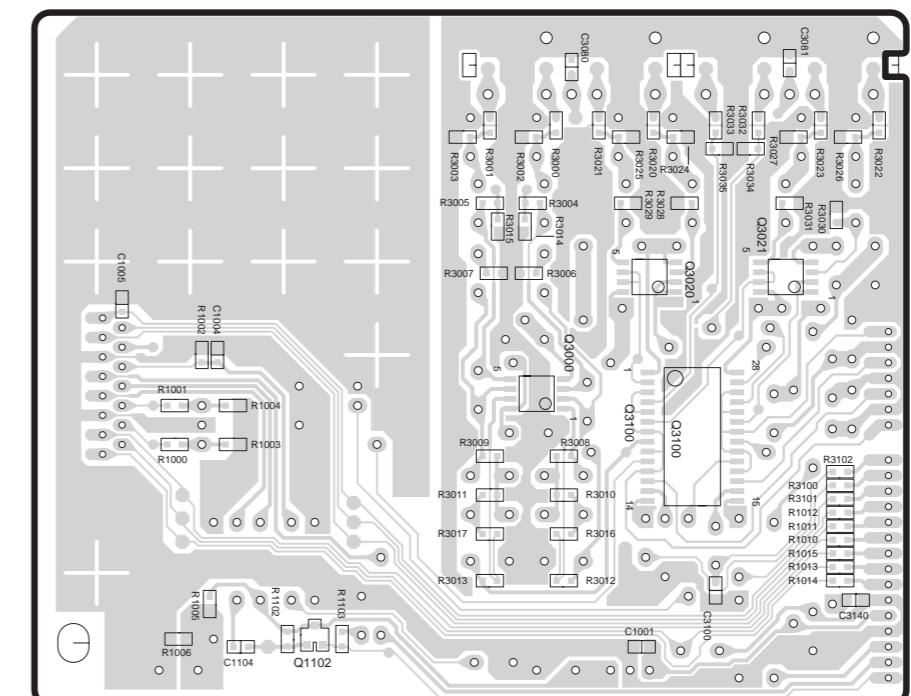


Component side



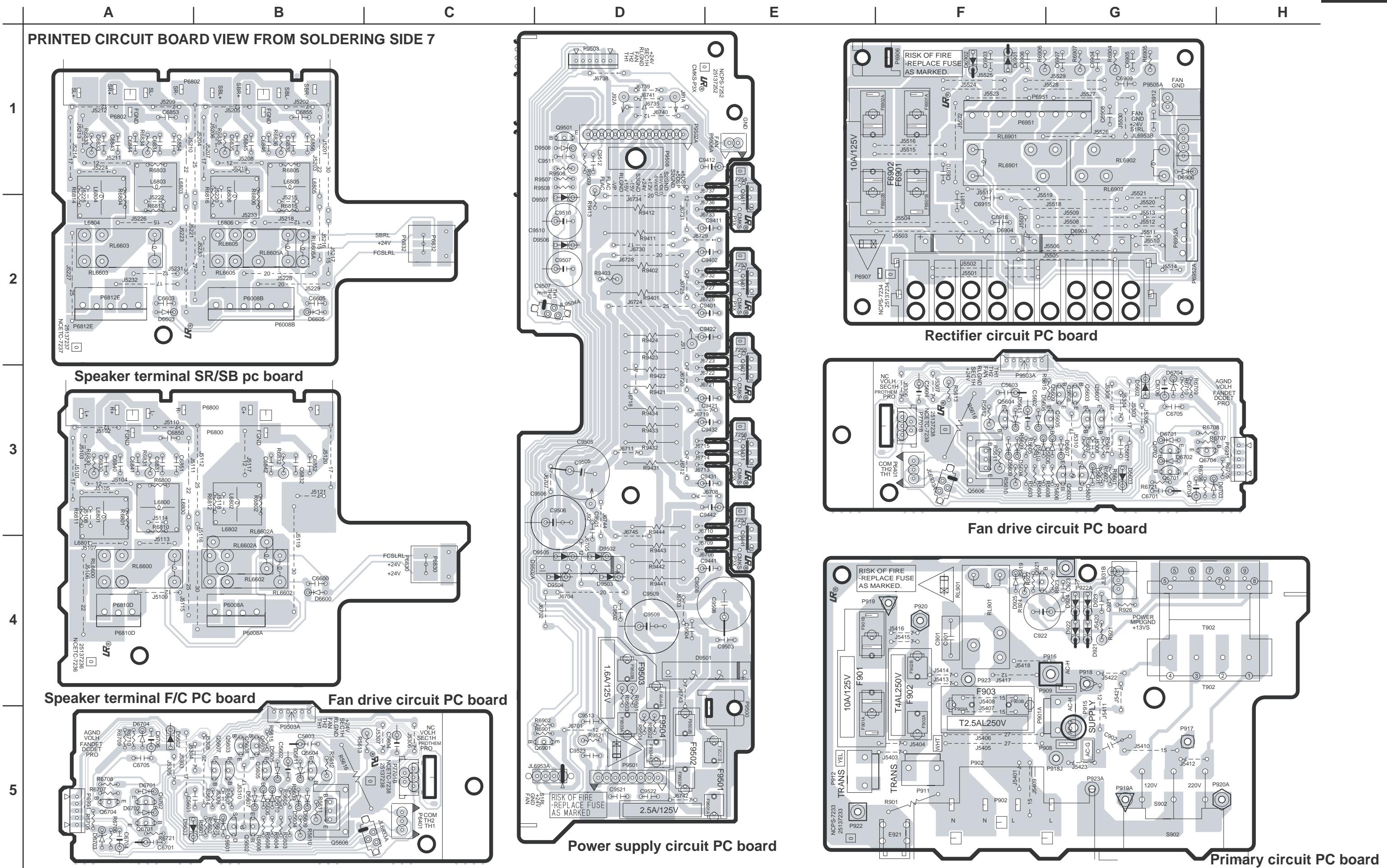
Soldering side

Video terminal PC board

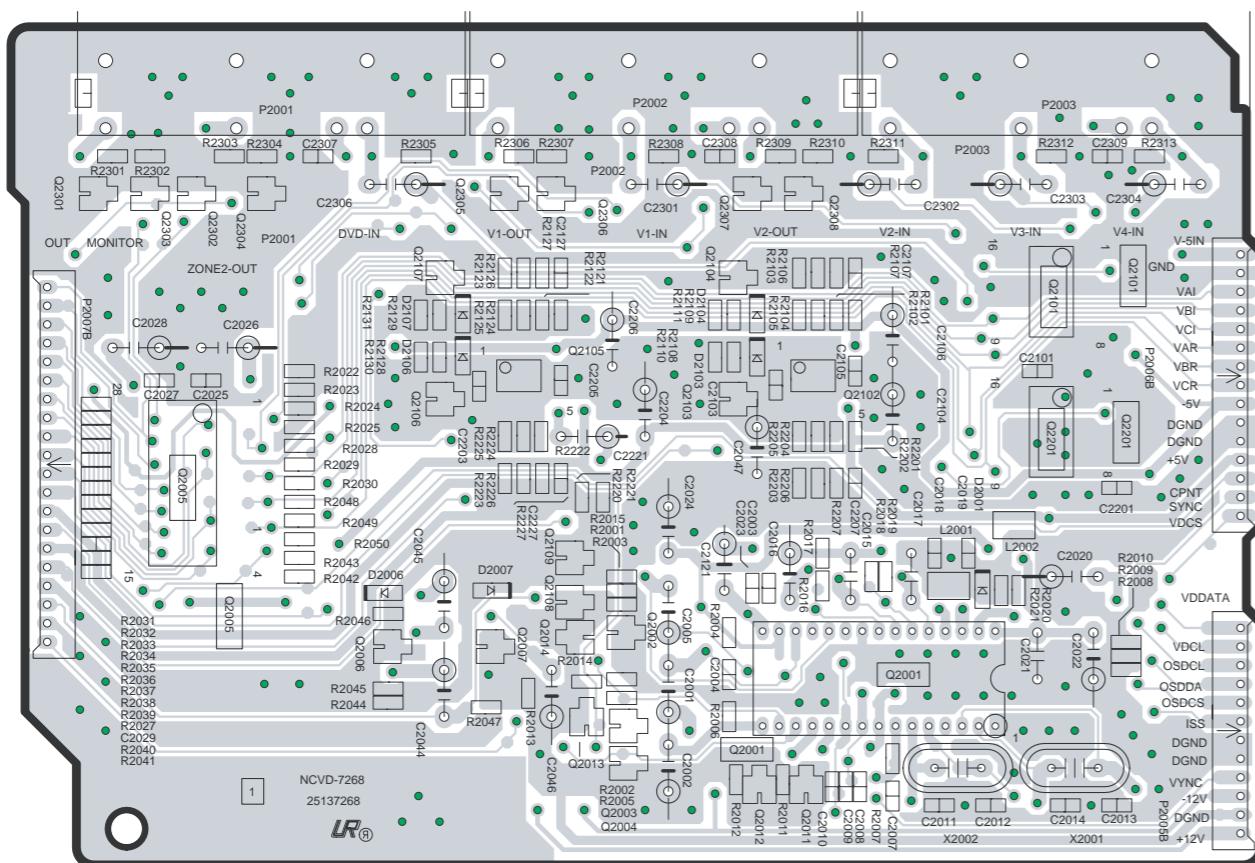


Soldering side

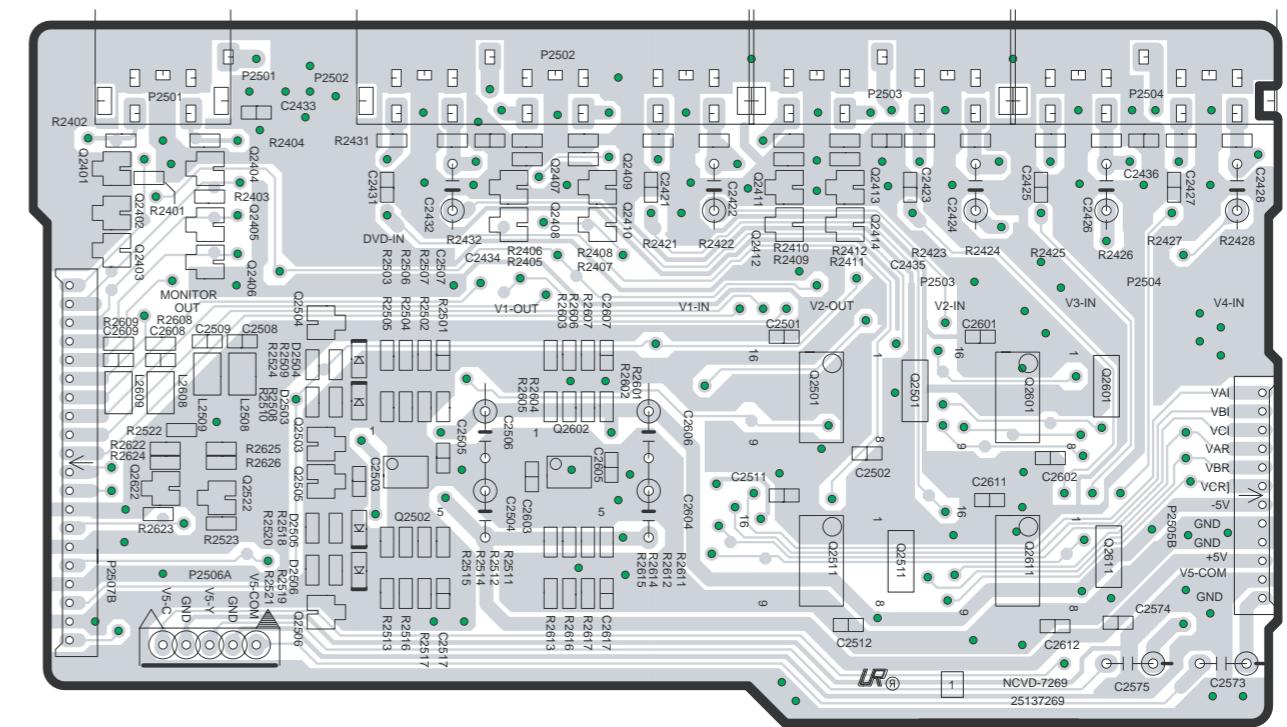
Audio terminal PC board



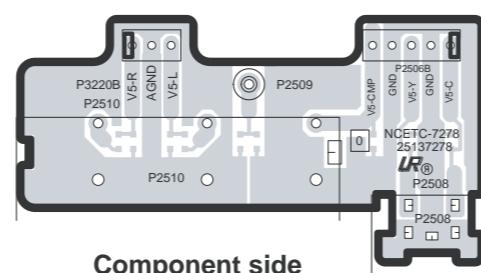
PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 8



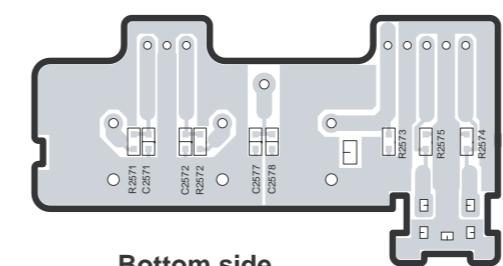
Composite video circuit PC board



S video circuit PC board



Component side



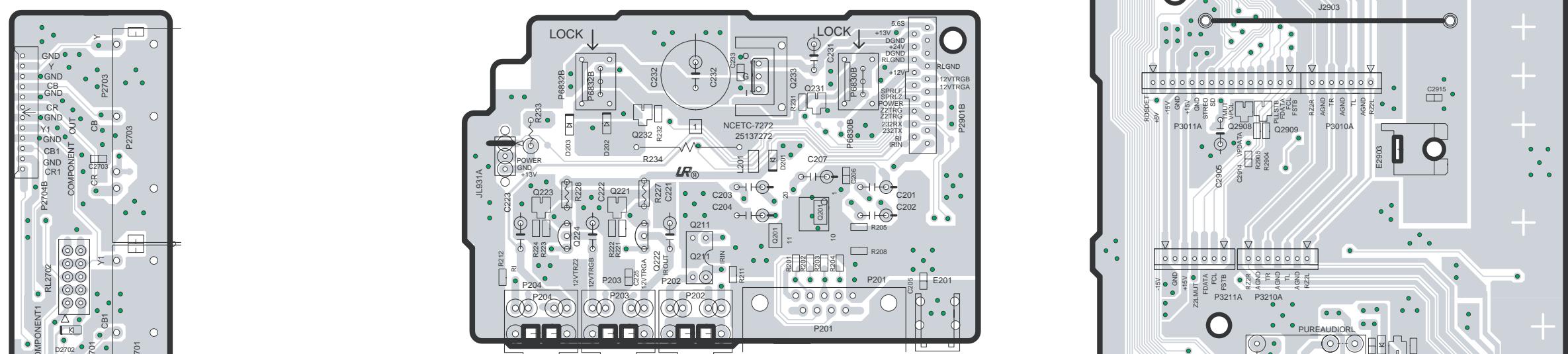
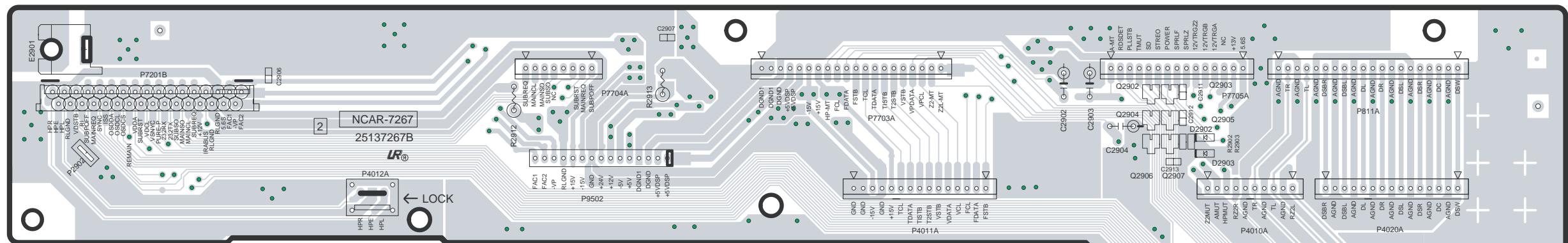
Bottom side

A

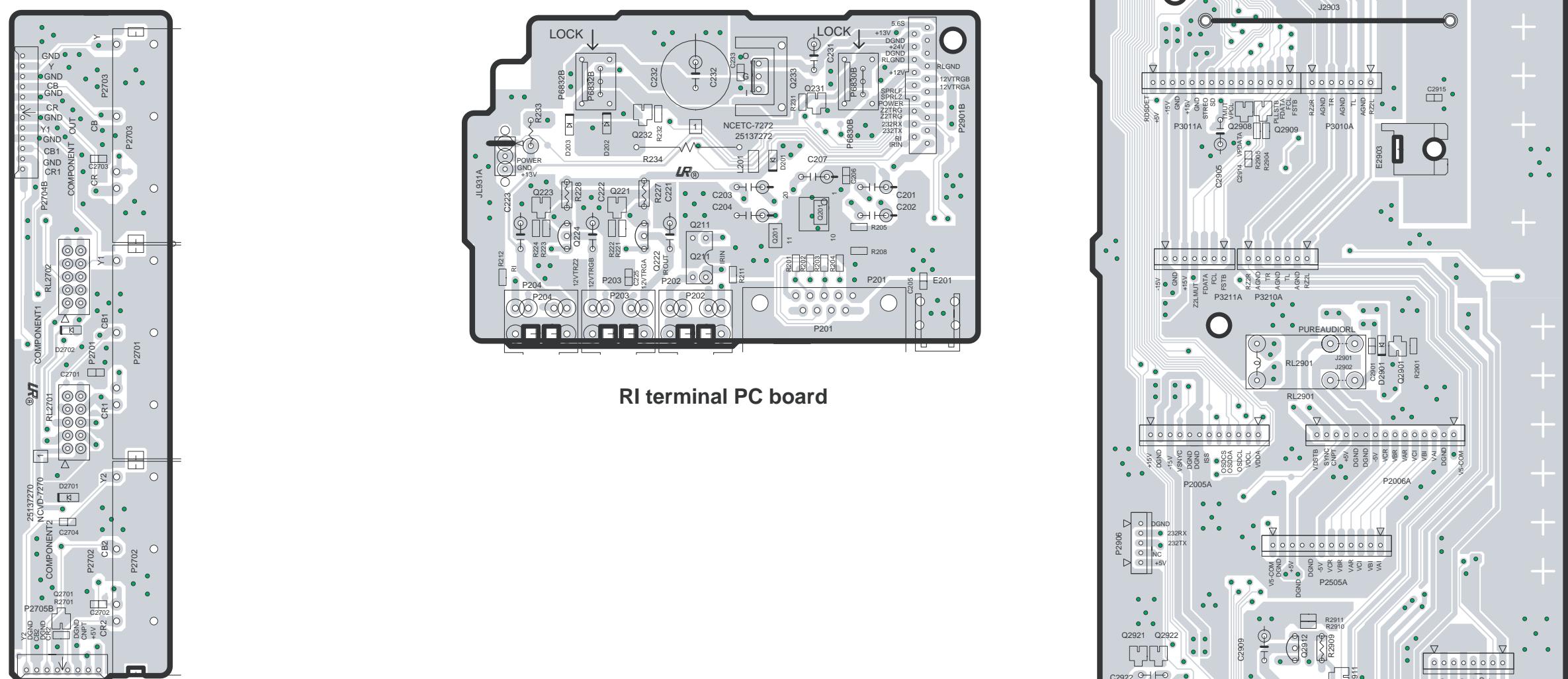
1

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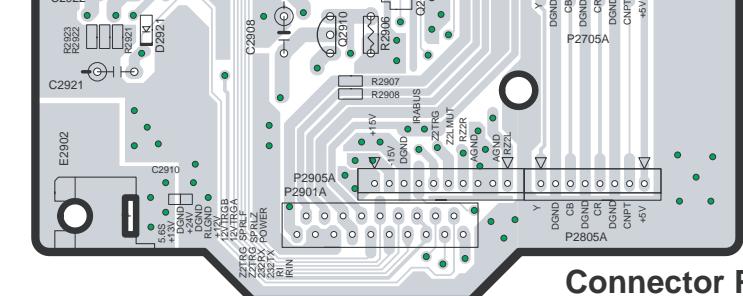
PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE B 9



RI terminal PC board



Component video terminal PC board



Connector PC board

A

E

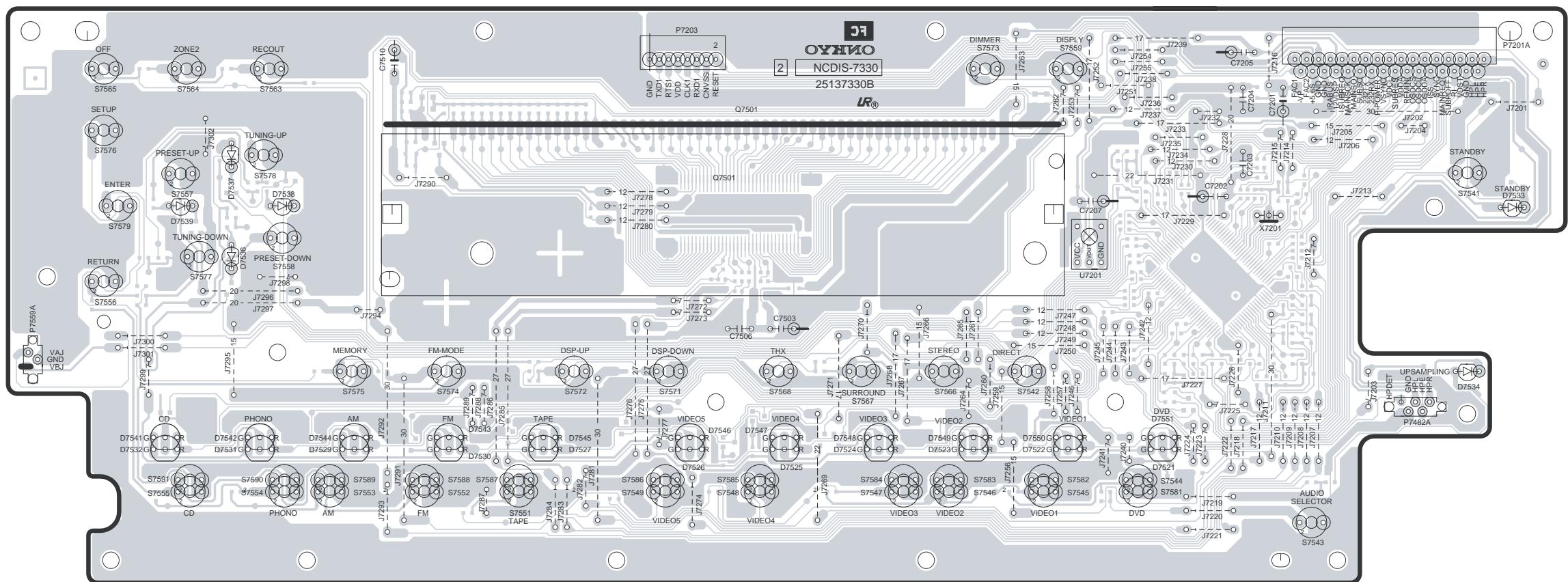
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PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 1

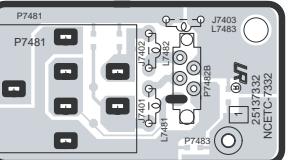
Display section

1



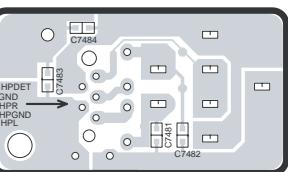
Component side

3



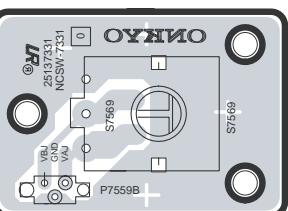
Component side

2



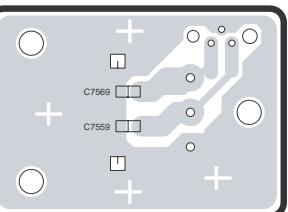
Soldering side
Headphone terminal
PC board

3



Component side

4



Soldering side

2

A

B

C

D

E

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PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 1

Display section

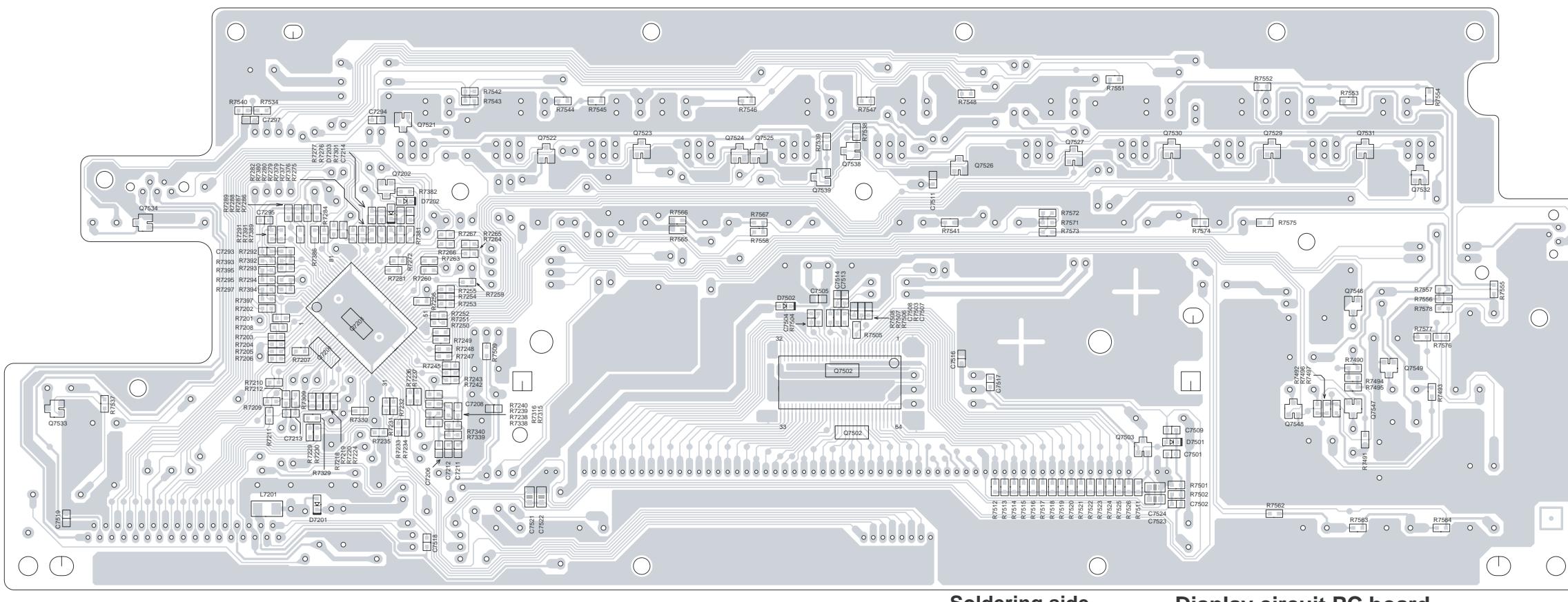
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PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 4

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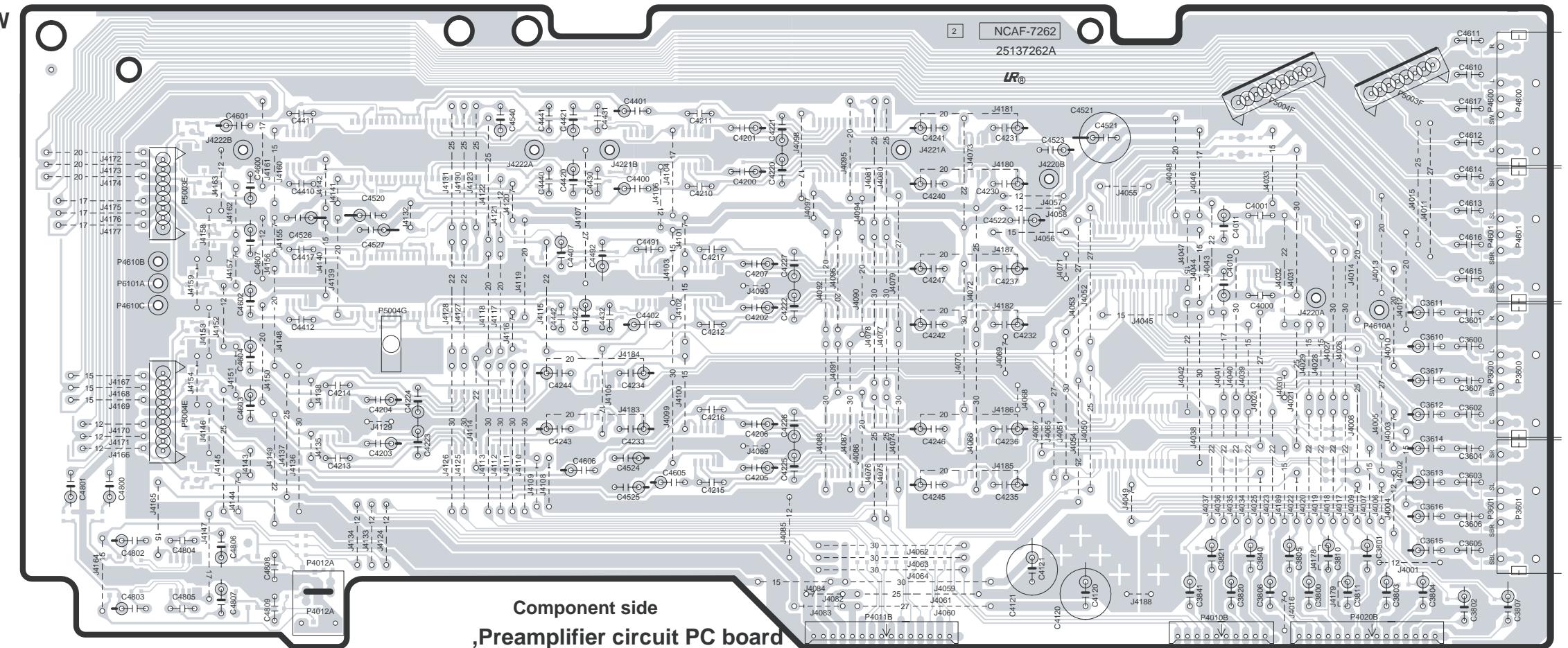
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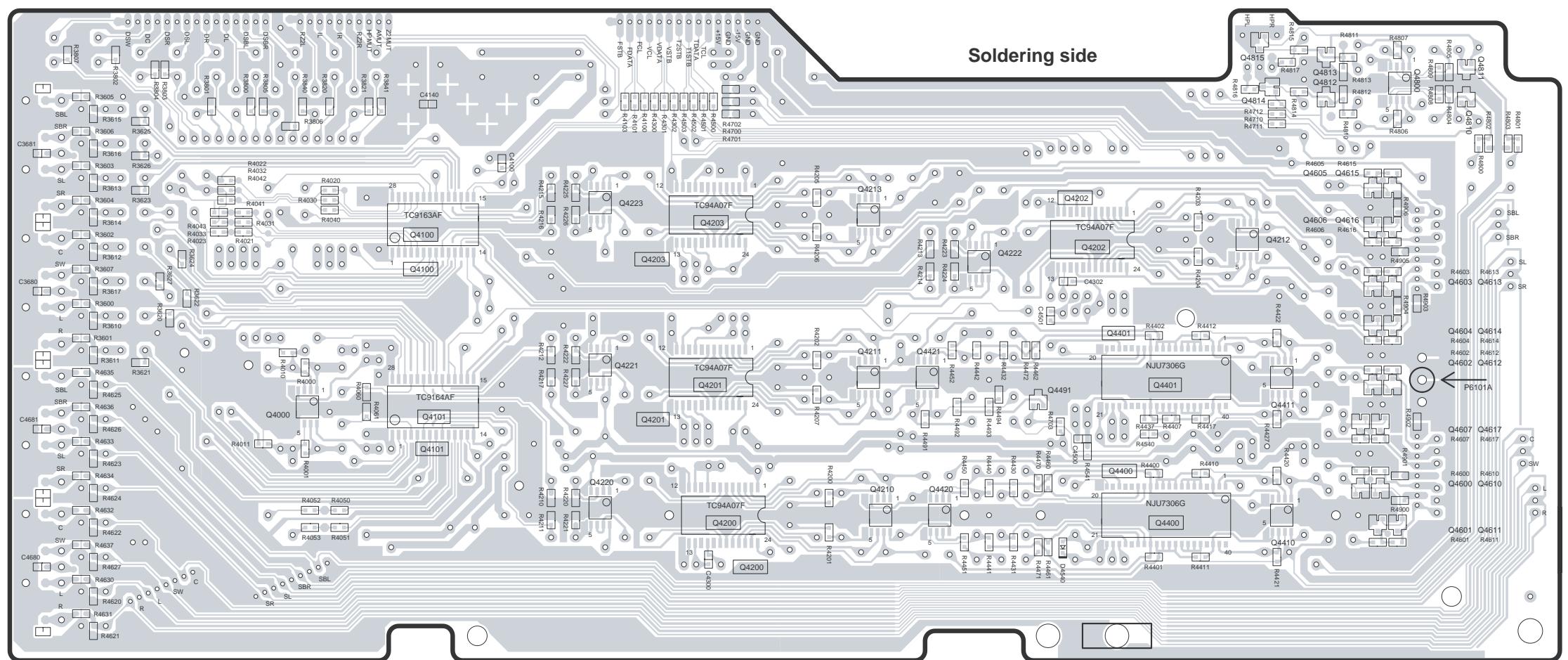
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**PRINTED CIRCUIT BOARD
FROM SOLDERING SIDE 4**

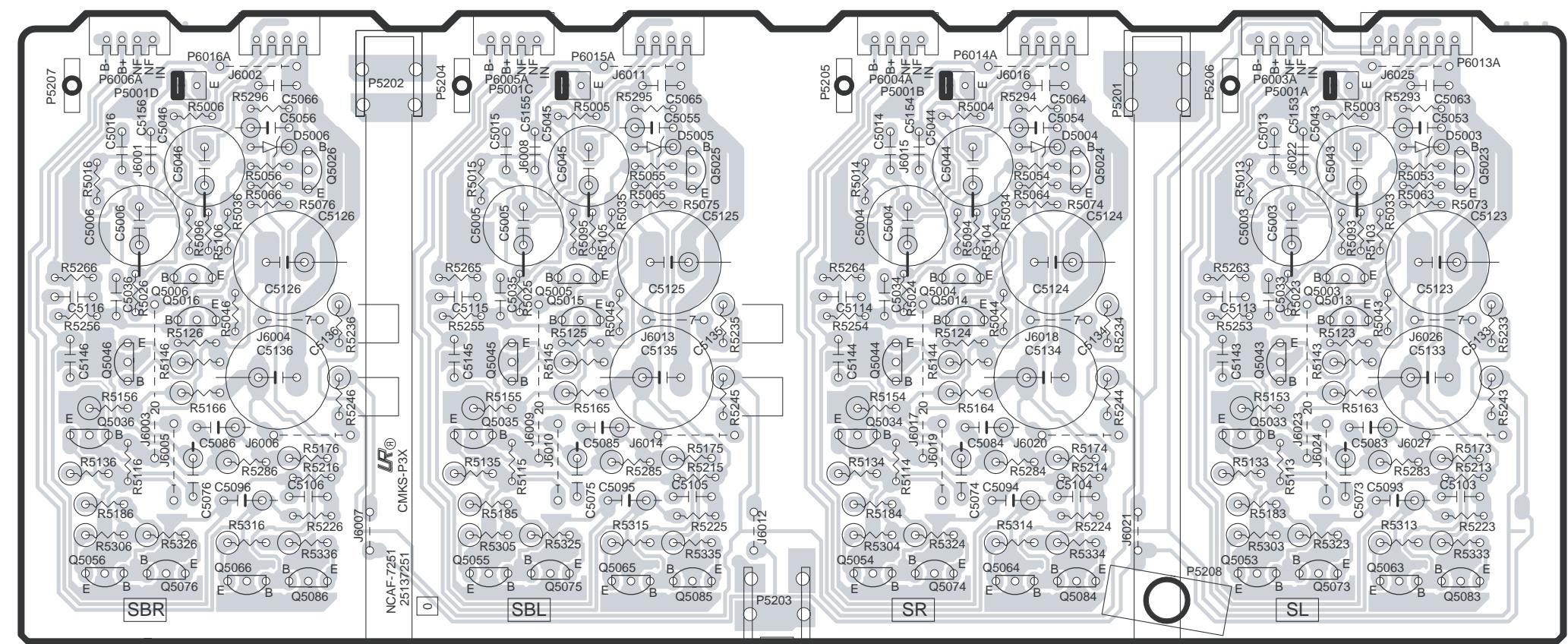


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4

PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE



Power amplifier driver PC board 2

PRINTED CIRCUIT BOARD-PARTS LIST 1

MAIN CIRCUIT PC BOARD (NADG-7226-1N/1O/1R)			CIRCUIT NO.	PART NO.	DESCRIPTION
CIRCUIT NO.	PART NO.	DESCRIPTION			
	ICs		L751,L752	231237M022R2	NCH-1471
Q100-Q102	22241448R2	NJM4580M-D	L753	231237K470R2	NCH-1479
Q103	22241522R2	AK4528VF	L7701	231237K220R2	NCH-1477
Q104	22241633R3	AK4114VQ	L801,L802	231237M022R2	NCH-1471
Q105	222740046R2TO	TC74HCU04F		Capacitors	
Q181	22241297R2	BU1923F <P>	C105	3567A4709R2	47uF,4V,Elect.
Q701	22241731R9	CS493002-CL(PL2/ES/NEO)	C110	356724709R2	47uF,6.3V,Elect.
Q702,Q712	22241458R3,	MBM29LV002TC-90PTN,	C116,C119	356723319R2	330uF,6.3V,Elect.
	22241457R3 or	MBM29LV004TC-90PTN or	C131,C139	356724709R2	47uF,6.3V,Elect.
	22241530R3	MBM29LV008TA-90PTN	C140	356741009R2	10uF,16V,Elect.
Q704,Q705	22274574ER2TO	TC74VHC574FT	C143,C148	356724709R2	47uF,6.3V,Elect.
Q707	22240935R2	TC7WU04FU	C150	356784799R2	0.47uF,50V,Elect.
Q708	22278025DR2NE	MPC2925T	C152,C153	356741009R2	10uF,16V,Elect.
Q709	22278033DR2NE	MPC2933T	C181	356780229R2	2.2uF,50V,Elect. <P>
Q711	22241456R9	CS493002-CL	C184	356724709R2	47uF,6.3V,Elect. <P>
Q713	22241517R3,	MPD441000LGU-B70X,	C706,C716	3567A1019R2	100uF,4V,Elect.
	22241459R3 or	MPD442000LGU-B70X or	C715	356724709R2	47uF,6.3V,Elect.
	22241742R2	IS62LV1024LL-70H	C731	356721019R2	100uF,6.3V,Elect.
Q714,Q715	22274574ER2TO	TC74VHC574FT	C735,C736	356724709R2	47uF,6.3V,Elect.
Q716	22274074ER2TO	TC74VHC74FT	C756,C766	3567A1019R2	100uF,4V,Elect.
Q717,Q718	22274541ER2TO	TC74VHC541FT	C7701	3000078	DX-5R5L104,Super for memory
Q719	222740077R2TO	TC74HCT7007AF	C7703-C7705	356721019R2	100uF,6.3V,Elect.
Q7701	22241758R3 or	M30624MGA-364FP or	C7711	356780109R2	1uF,50V,Elect.
	22241512	M30624FGAfp:(NSP)	C781	356721019R2	100uF,6.3V,Elect.
Q801	22241521R3	AK4356VQ	C802,C807	356723319R2	330uF,6.3V,Elect.
Q802-Q805	22241449R2,	NJM5532M-D,	C847-C850	356744709R2	47uF,16V,Elect.
	22241409R2 or	BA15532F or	C854-C857	356744709R2	47uF,16V,Elect.
	22241472R2	NJM2114M-D		Terminal	
	Transistor		P101	25045666	NPJ-3PDO465
Q7702	2216210R2 or	KRC104S or		Sockets	
	2214490R2	RN1404	P7701A	25052277R2	NSCT-5P2174
	Photo couplers		P7703B,P811B	25051241	NSCT-20P1031
U101	24120094	TOTX179	P7704B	25051233	NSCT-8P1023
U103-U105	24120095	TORX179	P7705B	25051240	NSCT-15P1030
	Diodes			Plug	
D101-D108	223234R2 or	1SS352 or	P102AA	25055133	NPLG-3P117
D7701-D7705	223269R2	1SS355		F/C DRIVER CIRCUIT PC BOARD (NAAF-7232-1N/1O/1P/1Q/1R/1U)	
D7706	224490620R2 or	UDZ6.2B or		CIRCUIT NO.	PART NO.
	224550620R2	UDZS6.2B			DESCRIPTION
	Oscillators				Transistors
X101	3010331R2	HC-49/U03C24,576MHz,Crystal	Q5000-Q5002	2215896,	* KTC3200-BL,
X181	3010203 or	AF6146CG or	Q5010-Q5012	2210755,	* 2SC1775A-E,
	3010345	HQS-3H2-04332-20 <P>		2210756 or	* 2SC1775A-F or
X701	3010324R2	CSTCV12,2MTJ0C4,Ceramic		2211733	* 2SC1845-E
X7701	3010329R2	CSTCV16,00MXJ0C,Ceramic	Q5020-Q5022	2215896,	KTC3200-BL,
	Coils			2210755,	2SC1775A-E,
L101,L102	231237M022R2	NCH-1471		2210756 or	2SC1775A-F or
L103,L104	231237K470R2	NCH-1479		2211733	2SC1845-E
L105	231237M022R2	NCH-1471	Q5030-Q5032	2215844,	KTA1024-Y,
L106,L107	230958R1	BK1608LM182-T	Q5040-Q5042	2211353,	2SA949-O,
L108,L109	231237M022R2	NCH-1471	Q5050-Q5052	2211354 or	2SA949-Y or
L181	231237K220R2	NCH-1477 <P>		2215843	KTA1024-O
L701,L702	231237M022R2	NCH-1471	Q5080-Q5082	2215854,	KTC3206-Y,
L703,L707	231237K470R2	NCH-1479		2211633,	2SC2229-O,
L704	231237M022R2	NCH-1471		2211634 or	2SC2229-Y or
L705,R729	230958R1	BK1608LM182-T		2215853	KTC3206-O

CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (HFE) as the original type.

NOTE: <P>:European model only (NSP): No spare parts

PRINTED CIRCUIT BOARD-PARTS LIST 2

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
Diodes					
D5000-D5002	224470562	MTZJ5.6B	R901	431533355	△ RC1/2GFKUL-3.3M <D>
Capacitors					
C5000,C5001	393371017	100uF,63V,Elect.	R924	443521804	18ohm+/-5%,1/2W,Metal oxide
C5002	393384707	47uF,50V,Elect.	RL901	25065584,	△ NRL-1P10A-DC12-140,
C5010,C5011	374721015	100pF+/-10%,50V,Plastic		25065516 or	△ NRL-1P10A-DC12-097 or
C5012	374722215	220pF+/-10%,50V,Plastic		25065588	△ NRL-1P10A-DC12-143
C5040-C5042	393342217	220uF,16V,Elect.		Switch	
C5050-C5052	354781009	10uF,50V,Elect.	S902	25065437	△ NSS-22157P <WT/R>
C5070-C5072	354791009	10uF,100V,Elect.		AC outlet	
C5080-C5082	354772209	22uF,63V,Elect.	P902	25051126	△ NSCT-4P913 <D>
C5090-C5092	354784709	47uF,50V,Elect.		25051125	△ NSCT-4P912 <P/WT/GT>
C5100-C5102	374721015	100pF+/-10%,50V,Plastic		25052115	△ NSCT-2P2013 <A>
C5120-C5122	354791019	100uF,100V,Elect.		25052381	△ NSCT-2P2278 <R>
C5130-C5132	354791019	100uF,100V,Elect.		Fuses	
Resistors					
R5130-R5132	443528214	820ohm+/-5%,1/2W,Metal oxide	F901	252199	△ 10A-UL, Fuse <D/WT/WR>
R5140-R5142	443528214	820ohm+/-5%,1/2W,Metal oxide	F902	252077,	△ 4A-SE-EAK,
R5150-R5152	443521034	10kohm+/-5%,1/2W,Metal oxide		252243 or	△ 4A-SE-TL250V or
R5160-R5162	443521024	1kohm+/-5%,1/2W,Metal oxide	F903	252277	△ 4A-SE-TL250V,Fuse <O>
R5170-R5172	443528214	820ohm+/-5%,1/2W,Metal oxide		252075,	△ 2.5A-SE-EAK,
R5180-R5182	443523304	33ohm+/-5%,1/2W,Metal oxide		252241 or	△ 2.5A-SE-TL250V or
R5230-R5232	443521504	15ohm+/-5%,1/2W,Metal oxide		252275	△ 2.5A-SE-TL250V,Fuse <O>
R5240-R5242	443521504	15ohm+/-5%,1/2W,Metal oxide	F901A,F901B	25052133	△ NSCT-1P2031<D/WT/R>
R5280-R5282	443521034	10kohm+/-5%,1/2W,Metal oxide	F902A,F902B	25052133	△ NSCT-1P2031 <O>
R5300-R5302	443521014	100ohm+/-5%,1/2W,Metal oxide	F903A,F903B	25052133	△ NSCT-1P2031 <O>
R5330-R5332	443521014	100ohm+/-5%,1/2W,Metal oxide		Socket	
Terminals					
P5100,P5101	25060302	NTM-1P233(M1969)	JL931B	25050267	NSCT-3P95
Sockets					
P6000A-P6002A	25052287	NSCT-4P2184	P901A	25055675 or	NPLG-2P631 or
P6010A	25052289	NSCT-6P2186		25056028	NPLG-2P0978 <D>
P6011A,P6012A	25052287	NSCT-4P2184	P911	25055675 or	NPLG-2P631 or
			P912	25056028	NPLG-2P0978
PRIMARY CIRCUIT PC BOARD (NAPS-7233-1N/1O/1P/1Q/1R/1U)					
CIRCUIT NO.	PART NO.	DESCRIPTION			
Transistor					
Q921	2215864, 2212115, 2213284 or 2213285	KTC3199-GR, 2SC2458-GR, 2SC1740S-R or 2SC1740S-S		RECTIFIER CIRCUIT PC BOARD (NAPS-7234-1N/1O/1P/1Q/1R/1U)	
Diodes					
D921-D924	22380260, 22380032 or 22380035	RL1N4003, 1SR139-100 or GP104003E	D6901,D6902	22380260, 22380032 or 22380035	RL1N4003, 1SR139-100 or GP104003E
D925	223163, 223205 or 223222	1SS133, 1SS270A or WG713A	D6906	22380309 or 22380044 223163, 223205 or 223222	D15XB60 or RBV-1506 1SS133, 1SS270A or WG713A
Power transformer					
T902	2300670A 2300671A 2300672A	△ NPT-1111D <D> △ NPT-1111P <P/A> △ NPT-1111DG <GT/WT/R>	C6903	374722234	0.022uF+/-5%,50V,Plastic
Capacitors					
C901	3500196S	△ RE275V-103M	C6908-C6911	374733344	0.33uF+/-5%,100V,Plastic
C902	3300030	△ DE1307E472M-KH	C6915,C6916	374733344	0.33uF+/-5%,100V,Plastic
C922	354762219	220uF,35V,Elect.	RL6901,RL6902	25065584, 25065516 or 25065588	NRL-1P10A-DC12-140, NRL-1P10A-DC12-097 or NRL-1P10A-DC12-143

NOTE: <D>:120V model only
<P>:European model only
<WT>:Worldwide model only
<GT>:220V model only
<R>:Chinese model only
<A>: Australian model only
<O>: All models except 120V model

NOTE: THE COMPONENTS IDENTIFIED BY MARK △
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PRINTED CIRCUIT BOARD-PARTS LIST 3

			SPEAKER TERMINAL SR/SB PC BOARD (NAETC-7237-1N/1O/1P/1Q/1R/1U)		
CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
		Fuses			Diodes
F6901,F6902	252199	△ 10A-UL, Fuse <D>	D6603,D6605	223163,	1SS133,
	252100	△ 10A-EAK, Fuse <O>		223205 or	1SS270A or
		Fuse holders		223222	WG713A
F6901A,F6901B	25052133	△ NSCT-1P2031			Capacitors
F6902A,F6902B	25052133	△ NSCT-1P2031	C6833,C6834	374731034	0.01uF+/-5%,100V,Plastic
		Fuse label	C6836	374731034	0.01uF+/-5%,100V,Plastic
F6901C	29362801	T10AL250V <O>	L6803-L6804	231176S	S-1.3C <O>
		Socket	L6806	231176S	S-1.3C <O>
JL6953B	25050268	NSCT-4P96			Resistors
		Plugs	C6843,C6844	374731024	1000pF+/-5%,100V,Plastic <O>
P6401	25055042	NPLG-3P32	C6846	374731024	1000pF+/-5%,100V,Plastic <O>
P6951	25055172	NPLG-9P156			Radiator
P6952A	25055168	NPLG-5P152	R5613	453530474	4.7ohm+/-5%,1/2W,Metal
P9505A	25055600	NPLG-2P568	R6833-R6836	453630824	8.2ohm+/-5%,1W,Metal
		Screws			Relays
D6903A	27160483	RAD-152	RL6603,RL6605	25065563,	NRL-2P5A-DC24-129,
		Spring washers		25065517 or	NRL-2P5A-DC24-098 or
D6903C,D9604C	871430	SW-3(BC)		25065586	NRL-2P5A-DC24-142
					Terminals
POWER SWITCH PC BOARD (NASW-7235-1N/1O/1P/1Q/1R/1U)			P6802	25060309	NTM-6PDMN240 <D>
CIRCUIT NO.	PART NO.	DESCRIPTION		25060310	NTM-6PDMN241 <O>
S906	25035636	△ NPS-111-L590P,Push switch			Plugs
			P6008B	25055169	NPLG-6P153
SPEAKER TERMINAL F/C PC BOARD (NAETC-7236-1N/1O/1P/1Q/1R/1U)			P6812E	25055168	NPLG-5P152
CIRCUIT NO.	PART NO.	DESCRIPTION	P6832	25055734	NPLG-3P690
		Diode	P6931	25055701	NPLG-5P657
D6600	223163,	1SS133,			FAN DRIVE CIRCUIT PC BOARD (NAETC-7238-1N/1O/1P/1Q/1R/1U)
	223205 or	1SS270A or			Transistors
	223222	WG713A	Q5601	2212445	2SK365-GR
L6800-L6802	231176S	S-1.3C <O>	Q5602,Q5603	2215864,	KTC3199-GR,
		Capacitors	Q5607,Q6701	2212115,	2SC2458-GR,
C6830-C6832	374731034	0.01uF+/-5%,100V,Plastic	Q6702	2213284 or	2SC1740S-R or
C6840-C6842	374731024	1000pF+/-5%,100V,Plastic <O>		2213285	2SC1740S-S
		Resistors	Q5604,Q5605	2215820,	KRC104M,
R6830-R6832	453630824	8.2ohm+/-5%,1W,Metal	Q5608,Q5609	221282 or	DTC144ES or
		Relays		2213560	RN1204
RL6600,RL6602	25065563,	NRL-2P5A-DC24-129,	Q5606	2203595,	KTC2026-GR,
	25065517 or	NRL-2P5A-DC24-098 or		2202705,	2SD2394-E,
	25065586	NRL-2P5A-DC24-142		2202706 or	2SD2394-F or
		Terminals		2203594	KTC2026-Y
P6800	25060309	NTM-6PDMN240 <D>	Q6704	2215995,	KTA1267-GR,
	25060310	NTM-6PDMN241 <O>		2212125,	2SA1048-GR,
		Plugs		2213354 or	2SA933S-R or
P6008A	25055167	NPLG-4P151		2213355	2SA933S-S
P6810D	25055166	NPLG-3P150	D5601	223163,	1SS133,
P6830	25055734	NPLG-3P690	D5604-D5607	223205 or	1SS270A or
			D5609,D5610	223222	WG713A
			D5602,D5603	22380260,	RL1N4003,
				22380032 or	1SR139-100 or
				22380035	GP104003E
			D5611	224471303	MTZJ13C

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PRINTED CIRCUIT BOARD-PARTS LIST 3

			NOTE: <D>:120V model only <P>:European model only <WT>:Worldwide model only <GT>: 220V model only <R> Chinese model only <A>: Australian model only <O>: All models except 120V model		
CIRCUIT NO.	PART NO.	DESCRIPTION	SPEAKER TERMINAL SR/SB PC BOARD (NAETC-7237-1N/1O/1P/1Q/1R/1U)		
			CIRCUIT NO.	PART NO.	DESCRIPTION
F6901,F6902	252199	⚠ 10A-UL, Fuse <D>	D6603,D6605	223163,	1SS133,
	252100	⚠ 10A-EAK, Fuse <O>		223205 or	1SS270A or
		Fuse holders		223222	WG713A
F6901A,F6901B	25052133	⚠ NSCT-1P2031			Capacitors
F6902A,F6902B	25052133	⚠ NSCT-1P2031		374731034	0.01uF+/-5%,100V,Plastic
		Fuse label		C6833,C6834	0.01uF+/-5%,100V,Plastic
F6901C	29362801	T10AL250V <O>	L6803-L6804	374731034	0.01uF+/-5%,100V,Plastic
		Socket	L6806	231176S	0.01uF+/-5%,100V,Plastic
JL6953B	25050268	NSCT-4P96		231176S	S-1.3C <O>
		Plugs			Resistors
P6401	25055042	NPLG-3P32	C6836	374731034	1000pF+/-5%,100V,Plastic <O>
P6951	25055172	NPLG-9P156	C6843,C6844	374731024	1000pF+/-5%,100V,Plastic <O>
P6952A	25055168	NPLG-5P152	C6846	374731024	1000pF+/-5%,100V,Plastic <O>
P9505A	25055600	NPLG-2P568			Relays
		Radiator	R5613	453530474	4.7ohm+/-5%,1/2W,Metal
D6903A	27160483	RAD-152	R6833-R6836	453630824	8.2ohm+/-5%,1W,Metal
		Screws			Terminals
D6903B,D6904B	82143010	3P+10FN(BC)	RL6603,RL6605	25065563,	NRL-2P5A-DC24-129,
		Spring washers		25065517 or	NRL-2P5A-DC24-098 or
D6903C,D9604C	871430	SW-3(BC)		25065586	NRL-2P5A-DC24-142
POWER SWITCH PC BOARD (NASW-7235-1N/1O/1P/1Q/1R/1U)			P6802	25060309	NTM-6PDMN240 <D>
CIRCUIT NO.	PART NO.	DESCRIPTION		25060310	NTM-6PDMN241 <O>
S906	25035636	⚠ NPS-111-L590P,Push switch			Plugs
			P6008B	25055169	NPLG-6P153
SPEAKER TERMINAL F/C PC BOARD (NAETC-7236-1N/1O/1P/1Q/1R/1U)			P6812E	25055168	NPLG-5P152
CIRCUIT NO.	PART NO.	DESCRIPTION	P6832	25055734	NPLG-3P690
		Diode	P6931	25055701	NPLG-5P657
D6600	223163,	1SS133,	FAN DRIVE CIRCUIT PC BOARD (NAETC-7238-1N/1O/1P/1Q/1R/1U)		
	223205 or	1SS270A or	CIRCUIT NO.	PART NO.	DESCRIPTION
	223222	WG713A		Transistors	
		Coils	Q5601	2212445	2SK365-GR
L6800-L6802	231176S	S-1.3C <O>	Q5602,Q5603	2215864,	KTC3199-GR,
		Capacitors	Q5607,Q6701	2212115,	2SC2458-GR,
C6830-C6832	374731034	0.01uF+/-5%,100V,Plastic	Q6702	2213284 or	2SC1740S-R or
C6840-C6842	374731024	1000pF+/-5%,100V,Plastic <O>		2213285	2SC1740S-S
		Resistors	Q5604,Q5605	2215820,	KRC104M,
R6830-R6832	453630824	8.2ohm+/-5%,1W,Metal	Q5608,Q5609	221282 or	DTC144ES or
		Relays		2213560	RN1204
RL6600,RL6602	25065563,	NRL-2P5A-DC24-129,	Q5606	2203595,	KTC2026-GR,
	25065517 or	NRL-2P5A-DC24-098 or		2202705,	2SD2394-E,
	25065586	NRL-2P5A-DC24-142		2202706 or	2SD2394-F or
		Terminals		2203594	KTC2026-Y
P6800	25060309	NTM-6PDMN240 <D>	Q6704	2215995,	KTA1267-GR,
	25060310	NTM-6PDMN241 <O>		2212125,	2SA1048-GR,
		Plugs		2213354 or	2SA933S-R or
P6008A	25055167	NPLG-4P151		2213355	2SA933S-S
P6810D	25055166	NPLG-3P150	D5601	223163,	Diodes
P6830	25055734	NPLG-3P690	D5604-D5607	1SS270A or	1SS133,
			D5609,D5610	223222	WG713A
			D5602,D5603	22380260,	RL1N4003,
				22380032 or	1SR139-100 or
				22380035	GP104003E
			D5611	224471303	MTZJ13C

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PRINTED CIRCUIT BOARD-PARTS LIST 4

CAUTION: Replacement for transistor of mark *, if necessary
must be made from the same beta group (HFE) as
the original type.

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Diodes			Transistors	
D6701,D6702	223163, 223205 or 223222	1SS133, 1SS270A or WG713A	Q6060-Q6064	2202813 or 2202812	* 2SA1943-O or * 2SA1943-R
D6703,D6704	224470512	MTZJ5.1B	Q6066	2214984 or 2214985	2SC2631-R or 2SC2631-S
	Capacitors		Q6070-Q6074	2203424 or	KTB1369-Y or
C5602-C5604	354761019	100uF,35V,Elect.	Q6076	2203000	2SA1930
C6701,C6706	354761019	100uF,6.3V,Elect.	Q6090-Q6092	2203434 or	KTD2061-Y or
C6704	354780109	1uF,50V,Elect.	Q6703	2203010	2SC5171
	Resistors			2215885, 2211792,	KTA1268-GR, 2SA992-F,
R5612	443521014	100ohm+/-5%,1/2W,Metal oxide		2211793 or	2SA992-E or
R5616	441721224	1.2kohm+/-5%,2W,Metal oxide		2215886	KTA1268-BL
	Sockets			Diodes	
P7701B	25052201, 25051271, 25051812 or 25052014	NSCT-5P2098, NSCT-5P1060, NSCT-5P1599 or NSCT-5P1801	D6000-D6004	223163, 223205 or 223222	1SS133, 1SS270A or WG713A
P9503A	25051231	NSCT-6P1021		Cores	
JL6933A	25051088	NSCT-4P875	L6000-L6002	5597-45502	Capacitors
			L6010-L6012	5597-45502	1000pF+/-5%,50V,Plastic
THERMAL DETECTOR CIRCUIT PC BOARD (NAETC-7239-1N/1O/1P/1Q/1R/1U)					
	CIRCUIT NO.	PART NO.	DESCRIPTION	C6000-C6004	374721024
		Thermistors		C6006	374721024
R5651	4000153	PTH9M04BF222TS2F333	C6020-C6022	394501007	10uF,160V,Elect.
R5653	4000150	PTH9M04BC222TS2F333 <D>	C6023,C6024	354784709	47uF,50V,Elect.
	4000151	PTH9M04BD222TS2F333 <O>	C6026	354784709	47uF,50V,Elect.
	Socket		C6030-C6034	374734734	0.047uF+/-5%,100V,Plastic
JL6933B	25051088	NSCT-4P875	C6036	374734734	0.047uF+/-5%,100V,Plastic
			C6510-C6514	354790479	4.7uF,100V,Elect.
			C6520-C6523	354790479	4.7uF,100V,Elect.
POWER AMPLIFIER DRIVER PC BOARD (NAAF-7250-2A/2B)					
	CIRCUIT NO.	PART NO.	DESCRIPTION	C6531,C6532	374721034
		Transistors		C6533	374721044
Q6000-Q6006	2213284 or	2SC1740S-R or	C6901,C6902	3504373	0.01uF+/-5%,50V,Plastic
Q6010-Q6014	2213285	2SC1740S-S			0.1uF+/-5%,50V,Plastic
Q6016	2213284 or	2SC1740S-R or			15000uF,71V,Elect.
	2213285	2SC1740S-S		Resistors	
Q6020-Q6022	2215995, 2212125, 2213354 or 2213355	KTA1267-GR, 2SA1048-GR, 2SA933S-R or 2SA933S-S	R6073,R6074,R6076	5210258	N06HR1KBC,Trimming
Q6023,Q6024	2211455 or	2SA1015-GR or	R6070-R6072	5210258	N06HR1KBC,Trimming
Q6026	2211454	2SA1015-Y	R6080-R6082	443528204	82ohm+/-5%,1/2W,Metal oxide
Q6030-Q6032	2215854, 2211633, 2211634 or 2215853	KTC3206-Y, 2SC2229-O, 2SC2229-Y or KTC3206-O	R6083,R6084	443521814	180ohm+/-5%,1/2W,Metal oxide
Q6033,Q6034	2203434 or	KTD2061-Y or	R6086	443521004	10ohm+/-5%,1/2W,Metal oxide
Q6036	2203010	2SC5171	R6090-R6092	443521004	2.2ohm+/-5%,1/2W,Metal
Q6040-Q6042	2215844, 2211353, 2211354 or 2215843	KTA1024-Y, 2SA949-O, 2SA949-Y or KTA1024-O	R6100-R6104	443521214	2.2ohm+/-5%,1/2W,Metal
Q6043-Q6044	2203424 or	KTB1369-Y or	R6106	443521214	2.2ohm+/-5%,1/2W,Metal
Q6046	2203000	2SA1930		4500245	2.2ohm+/-5%,1/2W,Metal
Q6050-Q6054	2202823 or	* 2SC5200-O or			2.2ohm+/-5%,1/2W,Metal
Q6056	2202822	* 2SC5200-R	R6130-R6134	453630824	0.22ohm+/-5%,1/2W,Metal
			R6136	453630824	0.22ohm+/-5%,1/2W,Metal
			R6230-R6232	443521214	120ohm+/-5%,1/2W,Metal oxide
			R6240-R6242	443521214	120ohm+/-5%,1/2W,Metal oxide
			R6250-R6252	443521804	180ohm+/-5%,1/2W,Metal oxide
			R6260-R6262	443521804	180ohm+/-5%,1/2W,Metal oxide
			R6270-R6272	453530224	2.2ohm+/-5%,1/2W,Metal
			R6280-R6282	453530224	2.2ohm+/-5%,1/2W,Metal
			R6510-R6514	453532294	0.22ohm+/-5%,1/2W,Metal
			R6520-R6523	453532294	0.22ohm+/-5%,1/2W,Metal

PRINTED CIRCUIT BOARD-PARTS LIST 5

CAUTION: Replacement for transistor of mark *, if necessary
must be made from the same beta group (HFE) as
the original type.

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Terminals			Transistors	
P5100A,P5101A	25060301	NTM-1P232(M1700)	Q5083,Q5084	2215854,	* KTC3206-Y,
P5201A,P5202A	25060301	NTM-1P232(M1700)	Q5086	2211633,	* 2SC2229-O,
	Sockets			2211634 or	* 2SC2229-Y or
P5003	2009990666UL	NSAS-12P0929		2215853	* KTC3206-O
P5004	2009990690UL	NSAS-12P0958		Diodes	
P6008	2009990670AUL	NSAS-14P0933	D5003,D5004	224470562	MTZJ5.6B
P6810	2009990668UL	NSAS-6P0931	D5006	224470562	MTZJ5.6B
P6812	2009990669UL	NSAS-6P0932		Capacitors	
P6931A	25051230	NSCT-5P1020	C5003,C5004	393384707	47uF,50V,Elect.
P6952	2009990671UL	NSAS-6P0934	C5006	393384707	47uF,50V,Elect.
	Plugs		C5013,C5014	374722215	220pF+/-10%,50V,Plastic
P6000-P6004	25056009	NPLG-4P0959	C5016	374722215	220pF+/-10%,50V,Plastic
P6006	25056009	NPLG-4P0959	C5043,C5044	393341017	100uF,16V,Elect.
P6010	25056011	NPLG-6P0961	C5046	393341017	100uF,16V,Elect.
P6011,P6012	25056009	NPLG-4P0959	C5053,C5054	354781009	10uF,50V,Elect.
P6013	25056011	NPLG-6P0961	C5056	354781009	10uF,50V,Elect.
P6014,P6016	25056009	NPLG-4P0959	C5073,C5074	354791009	10uF,100V,Elect.
P6080-P6084	25055038	NPLG-2P29	C5076	354791009	10uF,100V,Elect.
P6086	25055038	NPLG-2P29	C5083,C5084	354772209	22uF,63V,Elect.
	Retainer		C5086	354772209	22uF,63V,Elect.
P6009	27141794	(BUS)	C5093,C5094	354784709	47uF,50V,Elect.
	Bus bars		C5096	354784709	47uF,50V,Elect.
P6202,P6203	27141753	BBL50	C5103,C5104	374721015	100pF+/-10%,50V,Plastic
P6204,P6208	27141774	BBL75	C5106	374721015	100pF+/-10%,50V,Plastic
P6205	27141753	BBL50	C5123,C5124	354794709	47uF,100V,Elect.
P6206,P6207	27141773	BBL40	C5126	354794709	47uF,100V,Elect.
	Clamps		C5133,C5134	354794709	47uF,100V,Elect.
P6301-P6303	260224	CP-1S	C5136	354794709	47uF,100V,Elect.
P6305-P6307	260224	CP-1S		Resistors	
P9508	27301394	HL-18-0	R5133,R5134	443528214	820ohm+/-5%,1/2W,Metal oxide
	Heat sinks		R5136,R5143	443528214	820ohm+/-5%,1/2W,Metal oxide
Q6090A-Q6092A	27160486	RAD-155	R5144,R5146	443528214	820ohm+/-5%,1/2W,Metal oxide
	Screws		R5153,R5154	443521034	10kohm+/-5%,1/2W,Metal oxide
Q6090B-Q6092B	838430107	3TTB+10S(BC)	R5156	443521034	10kohm+/-5%,1/2W,Metal oxide
Q6100B-Q6102B	838430107	3TTB+10S(BC)	R5163,R5164	443521024	1kohm+/-5%,1/2W,Metal oxide
			R5166	443521024	1kohm+/-5%,1/2W,Metal oxide
			R5173,R5174	443528214	820ohm+/-5%,1/2W,Metal oxide
	POWER AMPLIFIER DRIVER PC BOARD (NAAF-7251-2A/2B)		R5176	443528214	820ohm+/-5%,1/2W,Metal oxide
	CIRCUIT NO.	PART NO.	R5183,R5184	443523304	33ohm+/-5%,1/2W,Metal oxide
		Transistors	R5186	443523304	33ohm+/-5%,1/2W,Metal oxide
Q5003,Q5004	2215896,	* KTC3200-BL,	R5233,R5234	443521504	15ohm+/-5%,1/2W,Metal oxide
Q5006,Q5013	2210755,	* 2SC1775A-E,	R5236,R5243	443521504	15ohm+/-5%,1/2W,Metal oxide
Q5014,Q5016	2210756 or	* 2SC1775A-F or	R5244,R5246	443521504	15ohm+/-5%,1/2W,Metal oxide
	2211733	* 2SC1845-E	R5283,R5284	443521034	10kohm+/-5%,1/2W,Metal oxide
Q5023,Q5024	2215896,	KTC3200-BL,	R5286	443521034	10kohm+/-5%,1/2W,Metal oxide
Q5026	2210755,	2SC1775A-E,	R5303,R5304	443521014	100ohm+/-5%,1/2W,Metal oxide
	2210756 or	2SC1775A-F or	R5306,R5333	443521014	100ohm+/-5%,1/2W,Metal oxide
	2211733	2SC1845-E	R5334,R5336	443521014	100ohm+/-5%,1/2W,Metal oxide
Q5033,Q5034	2215844,	KTA1024-Y,	P5201,P5202	25060302	NTM-1P233(M1969)
Q5036,Q5043	2211353,	2SA949-O,		Terminals	
Q5044,Q5046	2211354 or	2SA949-Y or	P6003A,P6004A	25052287	NSCT-4P2184
	2215843	KTA1024-O	P6006A	25052287	NSCT-4P2184
Q5053,Q5054	2215844,	* KTA1024-Y,	P6013A	25052289	NSCT-6P2186
Q5056	2211353,	* 2SA949-O,	P6014A,P6016A	25052287	NSCT-4P2184
	2211354 or	* 2SA949-Y or			
	2215843	* KTA1024-O			

PRINTED CIRCUIT BOARD-PARTS LIST 6

NOTE: THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

NOTE: <O>:120V model only
<O>: All models except 120V model

POWER SUPPLY CIRCUIT PC BOARD (NAPS-7252-2A/2B)

CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		
Q9401	222780155JRC	NJM78M15FA
Q9411	222790155JRC	NJM79M15FA
Q9421,Q9431	222780054JRC	NJM7805FA
Q9441	222790054JRC	NJM7905FA
Transistors		
Q6901	2215864, 2212115, 2213284 or 2213285	KTC3199-GR, 2SC2458-GR, 2SC1740S-R or 2SC1740S-S
Q9501	2211644	2SA965-Y
Diodes		
D9501,D9502	22380285, 22380022 or 22380271	RS403M, RBV402 or D3SBA20
D9506,D9507	22380260, 22380032 or 22380035	RL1N4003, 1SR139-100 or GP104003E
D9508	224473304	MTZJ33D
Capacitors		
C9401,C9402,C9411	394561007	10uF,35V,Elect.
C9412,C9421,C9422	394561007	10uF,35V,Elect.
C9431,C9432	394561007	10uF,35V,Elect.
C9441,C9442	394561007	10uF,35V,Elect.
C9501-C9504	374723344	0.33uF+/-5%,50V,Plastic
C9505	354762229	2200uF,35V,Elect.
C9506	354761029	1000uF,35V,Elect.
C9507	354782219	220uF,50V,Elect.
C9508	354744729	4700uF,16V,Elect.
C9509	354751029	1000uF,25V,Elect.
C9510	354772219	220uF,63V,Elect.
C9513	374723344	0.33uF+/-5%,50V,Plastic
C9521-C9523	374722234	0.022uF+/-5%,50V,Plastic
Resistors		
R9401,R9402	441721504	15ohm+/-5%,2W,Metal oxide
R9411,R9412	441722704	27ohm+/-5%,2W,Metal oxide
R9421-R9424	441620824	8.2ohm+/-5%,1W,Metal oxide
R9431,R9433	441621004	10ohm+/-5%,1W,Metal oxide
R9442,R9444	441622204	22ohm+/-5%,1W,Metal oxide
R9506	443522204	22ohm+/-5%,1/2W,Metal oxide
R9521	453530224	2.2ohm+/-5%,1/2W,Metal
Fuses		
F9501,F9502	252160 or 252254 252075, 252241 or 252275	 2.5A-UL/T-237 or  2.5A-T/UL-ST2 <D>  2.5A-SE-EAK,  2.5A-SE-TL250V or  2.5A-SE-TL250V <O>
F9503,F9504	252158 or 252252 252073 or 252239	 1.6A-UL/T-237 or  1.6A-T/UL-ST2 <D>  1.6A-SE-EAK or  1.6A-SE-TL250V <O>
Fuse holders		
F9501A,F9501B	25052133	 NSCT-1P2031
F9502A,F9502B	25052133	 NSCT-1P2031
F9503A,F9503B	25052133	 NSCT-1P2031
F9504A,F9504B	25052133	 NSCT-1P2031

CIRCUIT NO.

PART NO.

DESCRIPTION

Fuse labels

F9501C 29361747 T2.5AL250V <O>

F9503C 29361769 T1.6AL250V <O>

Sockets

JL6953A,JL9504A 25051108 NSCT-4P895

Plugs

P9501 25055138 NPLG-8P122

P9502A 25055159 NPLG-15P143

P9503 25055702 NPLG-6P658

THERMAL DETECTOR CIRCUIT PC BOARD (NAETC-7258-2A/2B)

CIRCUIT NO.

PART NO.

DESCRIPTION

Thermistors

R5652 4000153 PTH9M04BF222TS2F333

R5654 4000150 PTH9M04BC222TS2F333 <D>

4000151 PTH9M04BD222TS2F333 <O>

Socket

JL9504B 25051088 NSCT-4P875

PREAMPLIFIER CIRCUIT PC BOARD (NAAF-7262-1N/1O/1P)

CIRCUIT NO.

PART NO.

DESCRIPTION

ICs

Q4000,Q4420 22241383R2 or NJM4565M-D

Q4421,Q4800 22240489R1NE MPC4570G2-T1(MST)

Q4100 22240943R2 TC9163AF

Q4101 22241221R2 TC9164AF

Q4200-Q4203 22241640R2 TC94A07F

Q4210-Q4213 22241450R2 or NJM2082M-D or

Q4410,Q4411 22241567R2 NJM2082M

Q4400,Q4401 22241451R9 NJU7306G

Transistors

Q4491 2215410R2 RN1441

Q4600-Q4607 2215410R2 RN1441

Q4610-Q4617 2215410R2 RN1441

Q4810-Q4815 2215410R2 RN1441

Diode

D4540 224490510R2 UZD5.1B

Capacitors

C3600-C3607 374723314 330pF+/-5%,50V,Plastic

C3610-C3617 393381007 10uF,50V,Elect.

C3800-C3802 393384707 47uF,50V,Elect.

C3803-C3806 393381007 10uF,50V,Elect.

C3807 354724719 470uF,6.3V,Elect.

C3820,C3821 393384707 47uF,50V,Elect.

C3840,C3841 393381007 10uF,50V,Elect.

C4010,C4011 393381007 10uF,50V,Elect.

C4120 354742219 220uF,16V,Elect.

C4121 354741029 1000uF,16V,Elect.

C4200-C4207 393381007 10uF,50V,Elect.

C4217 374721024 1000pF+/-5%,50V,Plastic

C4220-C4227 393382207 22uF,50V,Elect.

C4400-C4402 393384707 47uF,50V,Elect.

C4407 393384707 47uF,50V,Elect.

C4417 374721024 1000pF+/-5%,50V,Plastic

C4420-C4422 354741009 10uF,16V,Elect.

C4430-C4432 374721044 0.1uF+/-5%,50V,Plastic

C4440-C4442 374724724 4700pF+/-5%,50V,Plastic

PRINTED CIRCUIT BOARD-PARTS LIST 6

NOTE: THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

NOTE: <O>:120V model only
<O>: All models except 120V model

POWER SUPPLY CIRCUIT PC BOARD (NAPS-7252-2A/2B)

CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		
Q9401	222780155JRC	NJM78M15FA
Q9411	222790155JRC	NJM79M15FA
Q9421,Q9431	222780054JRC	NJM7805FA
Q9441	222790054JRC	NJM7905FA
Transistors		
Q6901	2215864, 2212115, 2213284 or 2213285	KTC3199-GR, 2SC2458-GR, 2SC1740S-R or 2SC1740S-S
Q9501	2211644	2SA965-Y
Diodes		
D9501,D9502	22380285, 22380022 or 22380271	RS403M, RBV402 or D3SBA20
D9506,D9507	22380260, 22380032 or 22380035	RL1N4003, 1SR139-100 or GP104003E
D9508	224473304	MTZJ33D
Capacitors		
C9401,C9402,C9411	394561007	10uF,35V,Elect.
C9412,C9421,C9422	394561007	10uF,35V,Elect.
C9431,C9432	394561007	10uF,35V,Elect.
C9441,C9442	394561007	10uF,35V,Elect.
C9501-C9504	374723344	0.33uF+/-5%,50V,Plastic
C9505	354762229	2200uF,35V,Elect.
C9506	354761029	1000uF,35V,Elect.
C9507	354782219	220uF,50V,Elect.
C9508	354744729	4700uF,16V,Elect.
C9509	354751029	1000uF,25V,Elect.
C9510	354772219	220uF,63V,Elect.
C9513	374723344	0.33uF+/-5%,50V,Plastic
C9521-C9523	374722234	0.022uF+/-5%,50V,Plastic
Resistors		
R9401,R9402	441721504	15ohm+/-5%,2W,Metal oxide
R9411,R9412	441722704	27ohm+/-5%,2W,Metal oxide
R9421-R9424	441620824	8.2ohm+/-5%,1W,Metal oxide
R9431,R9433	441621004	10ohm+/-5%,1W,Metal oxide
R9442,R9444	441622204	22ohm+/-5%,1W,Metal oxide
R9506	443522204	22ohm+/-5%,1/2W,Metal oxide
R9521	453530224	2.2ohm+/-5%,1/2W,Metal
Fuses		
F9501,F9502	252160 or 252254 252075, 252241 or 252275	 2.5A-UL/T-237 or  2.5A-T/UL-ST2 <D>  2.5A-SE-EAK,  2.5A-SE-TL250V or  2.5A-SE-TL250V <O>
F9503,F9504	252158 or 252252 252073 or 252239	 1.6A-UL/T-237 or  1.6A-T/UL-ST2 <D>  1.6A-SE-EAK or  1.6A-SE-TL250V <O>
Fuse holders		
F9501A,F9501B	25052133	 NSCT-1P2031
F9502A,F9502B	25052133	 NSCT-1P2031
F9503A,F9503B	25052133	 NSCT-1P2031
F9504A,F9504B	25052133	 NSCT-1P2031

CIRCUIT NO.

PART NO.

DESCRIPTION

Fuse labels

F9501C 29361747 T2.5AL250V <O>

F9503C 29361769 T1.6AL250V <O>

Sockets

JL6953A,JL9504A 25051108 NSCT-4P895

Plugs

P9501 25055138 NPLG-8P122

P9502A 25055159 NPLG-15P143

P9503 25055702 NPLG-6P658

THERMAL DETECTOR CIRCUIT PC BOARD (NAETC-7258-2A/2B)

CIRCUIT NO.

PART NO.

DESCRIPTION

Thermistors

R5652 4000153 PTH9M04BF222TS2F333

R5654 4000150 PTH9M04BC222TS2F333 <D>

4000151 PTH9M04BD222TS2F333 <O>

Socket

JL9504B 25051088 NSCT-4P875

PREAMPLIFIER CIRCUIT PC BOARD (NAAF-7262-1N/1O/1P)

CIRCUIT NO.

PART NO.

DESCRIPTION

ICs

Q4000,Q4420 22241383R2 or NJM4565M-D

Q4421,Q4800 22240489R1NE MPC4570G2-T1(MST)

Q4100 22240943R2 TC9163AF

Q4101 22241221R2 TC9164AF

Q4200-Q4203 22241640R2 TC94A07F

Q4210-Q4213 22241450R2 or NJM2082M-D or

Q4410,Q4411 22241567R2 NJM2082M

Q4400,Q4401 22241451R9 NJU7306G

Transistors

Q4491 2215410R2 RN1441

Q4600-Q4607 2215410R2 RN1441

Q4610-Q4617 2215410R2 RN1441

Q4810-Q4815 2215410R2 RN1441

Diode

D4540 224490510R2 UZD5.1B

Capacitors

C3600-C3607 374723314 330pF+/-5%,50V,Plastic

C3610-C3617 393381007 10uF,50V,Elect.

C3800-C3802 393384707 47uF,50V,Elect.

C3803-C3806 393381007 10uF,50V,Elect.

C3807 354724719 470uF,6.3V,Elect.

C3820,C3821 393384707 47uF,50V,Elect.

C3840,C3841 393381007 10uF,50V,Elect.

C4010,C4011 393381007 10uF,50V,Elect.

C4120 354742219 220uF,16V,Elect.

C4121 354741029 1000uF,16V,Elect.

C4200-C4207 393381007 10uF,50V,Elect.

C4217 374721024 1000pF+/-5%,50V,Plastic

C4220-C4227 393382207 22uF,50V,Elect.

C4400-C4402 393384707 47uF,50V,Elect.

C4407 393384707 47uF,50V,Elect.

C4417 374721024 1000pF+/-5%,50V,Plastic

C4420-C4422 354741009 10uF,16V,Elect.

C4430-C4432 374721044 0.1uF+/-5%,50V,Plastic

C4440-C4442 374724724 4700pF+/-5%,50V,Plastic

PRINTED CIRCUIT BOARD-PARTS LIST 7

NOTE: <D>:120V model only

<O>: All models except 120V model

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
Capacitors					
C4491	374721024	1000pF+/-5%,50V,Plastic	P3000,P3001	25045575 or	NPJ-4PDRW389 or
C4492	354724719	470uF,6.3V,Elect.		25045303	NPJ-4PDBL162
C4522,C4523	354741009	10uF,16V,Elect.	P1010A	25052248,	NSCT-15P2145,
C4524,C4525	354742219	220uF,16V,Elect.		25051859 or	NSCT-15P1646 or
C4540	354721019	100uF,6.3V,Elect.		25052061	NSCT-15P1848
C4600-C4607	393384707	47uF,50V,Elect.	P3010B	25051232	NSCT-7P1022
C4610-C4617	374722224	2200pF+/-5%,50V,Plastic	P3011B	25051240	NSCT-15P1030
C4800,C4801	354741009	10uF,16V,Elect.	VIDEO TERMINAL PC BOARD (NAAF-7264-1N/1O/1P)		
C4802,C4803	354780229	2.2uF,50V,Elect.	CIRCUIT NO.	PART NO.	DESCRIPTION
C4806,C4807	354721019	100uF,6.3V,Elect.	ICs		
C4808,C4809	374722224	2200pF+/-5%,50V,Plastic	Q3200-Q3205	22241383-R2 or	NJM4565M-D or
Resistors					
R4520,R4521	4500171F	2.2ohm+/-5%,1/4W,Metal oxide	Q3400	22240489R1NE	MPC4570G2-T1(MST)
Terminals					
P3600,P4600	25045586	NPJ-4PDBRW397	Q3300	22240829	TC9274N-008
P3601,P4601	25045575 or	NPJ-4PDRW389 or	Q3410-Q3413	2215410R2	RN1441
	25045303	NPJ-4PDBL162	Sockets		
P4010B	25051235	NSCT-10P1025	C3200-C3209	374723314	330pF+/-5%,50V,Plastic
P4011B,P4020B	25051240	NSCT-15P1030	C3212-C3223	393384707	47uF,50V,Elect.
Plugs					
P4012A	25055734	NPLG-3P690	C3320,C3321	354742219	220uF,16V,Elect.
P5003E	25055152	NPLG-8P136	C3322,C3323	354744709	47uF,16V,Elect.
P5004E	25055153	NPLG-9P137	C3400-C3403	393384707	47uF,50V,Elect.
Bus bars					
J4220-J4222	27141754	BBL60	C3404,C3405	374721024	1000pF+/-5%,50V,Plastic
Holder					
P5004G	27190608-1	Clamp	R3320,R3321	443522204	22ohm+/-5%,1/2W,Metal oxide
AUDIO TERMINAL PC BOARD (NAAF-7263-1N/1O/1P)					
CIRCUIT NO.	PART NO.	DESCRIPTION	P3210B,P3211B	25051232	NSCT-7P1022
ICs					
Q1001	222780125	78M12HF	P3220A	25055133	NPLG-3P117
Q3000	22241383-R2 or	NJM4565M-D	Plug		
Q3020,Q3021	22240489R1NE	MPC4570G2-T1(MST)	CONNECTOR PC BOARD (NAAF-7267-1N/1O)		
Q3100	22241639R2	TC9273F-017	CIRCUIT NO.	PART NO.	DESCRIPTION
Transistor					
Q1102	2216175R2 or	KTC3875-GR or	Q2903,Q2905	2216175R2 or	KTC3875-GR or
	2213145R2	2SC2712-GR	Q2907,Q2909	2213145R2	2SC2712-GR
Capacitors					
C1002	354741009	10uF,16V,Elect.	Q2902,Q2904	2216220R2 or	KRA102S or
C1003,C1006	354780339	3.3uF,50V,Elect.	Q2906,Q2908	2214530R2	RN2402
C1007	354741009	10uF,16V,Elect.	Q2911,Q2921	2216190R2 or	KRC102S or
C3000,C3001	374721015	100pF+/-10%,50V,Plastic <D>	Q2922	2214470R2	RN1402
	374722215	220pF+/-10%,50V,Plastic <O>	Q2912	2212855 or	2SB1068-U or
C3002,C3003	393384707	47uF,50V,Elect.		2212853	2SB1068-K
C3004,C3005	374721524	1500pF+/-5%,50V,Plastic <O>	D2902,D2903	223234R2 or	1SS352 or
C3006,C3007	354722219	220uF,6.3V,Elect.	D2921	223269R2	1SS355
C3008,C3009	374721234	0.012uF+/-5%,50V,Plastic	Capacitors		
C3010,C3011	374723924	3900pF+/-5%,50V,Plastic	C2902-C2905	354741009	10uF,16V,Elect.
C3020-C3023	374723314	330pF+/-5%,50V,Plastic	C2909	354741009	10uF,16V,Elect.
C3026-C3029	393384707	47uF,50V,Elect.	C2921	354721019	100uF,6.3V,Elect.
C3120,C3121	354744709	47uF,16V,Elect.	C2922	374722234	0.022uF+/-5%,50V,Plastic
C3122,C3123	354742219	220uF,16V,Elect.	R2909	4000195	RXE030

PRINTED CIRCUIT BOARD-PARTS LIST 8

NOTE: <O>: All models except 120V model

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
Resistors					
R2912	453530474	4.7ohm+/-5%,1/2W,Metal	L2001	231292J056R2	NCH-1572
R2913	453530224	2.2ohm+/-5%,1/2W,Metal	L2002	231237K022R2	NCH-1471
Sockets					
P4012A	25051255	NSCT-3P1045	C2001	354721019	100uF,6.3V,Elect.
P7201B	25051840	NSCT-33P1627	C2002,C2016	354780109	1uF,50V,Elect.
P9502	2009990692UL	NSAS-30P0961	C2005	354783399	0.33uF,50V,Elect.
Plugs					
P2005A,P2505A	25055708	NPLG-12P664	C2015	374726824	6800pF+/-5%,50V,Plastic
P2006A	25055711	NPLG-15P667	C2017	374722234	0.022uF+/-5%,50V,Plastic
P2705A	25055704	NPLG-8P660	C2020	354784799	0.47uF,50V,Elect.
P2901A	25055917	NPLG-19P870	C2021	375524744	0.47uF+/-5%,50V,Plastic
P2906	25055701	NPLG-5P657	C2022,C2024	354721019	100uF,6.3V,Elect.
P3010A	25055703	NPLG-7P659	C2026,C2028	354741009	10uF,16V,Elect.
P3011A	25055711	NPLG-15P667	C2044	354741009	10uF,16V,Elect.
P3210A,P3211A	25055703	NPLG-7P659	C2045	354780229	2.2uF,50V,Elect.
P4010A	25055706	NPLG-10P662	C2046	354784799	0.47uF,50V,Elect.
P4011A,P4020A	25055711	NPLG-15P667	C2047	354721019	100uF,6.3V,Elect.
P7703A	25055712	NPLG-20P668	C2104,C2106	354721019	100uF,6.3V,Elect.
P7704A	25055704	NPLG-8P660	C2121	354741009	10uF,16V,Elect.
P7705A	25055711	NPLG-15P667	C2204,C2206	354721019	100uF,6.3V,Elect.
P811A	25055712	NPLG-20P668	C2221,C2306	354721019	100uF,6.3V,Elect.
Bus bar					
J2903	27141753	BBL50	C2301-C2304	354721019	100uF,6.3V,Elect.
Clamp					
P2902	260224	CP-1S	Terminals		

COMPOSITE VIDEO CIRCUIT PC BOARD (NAVD-7268-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		

Q2001	22241037	LC74761-9189
Q2005	22241619R2	TC9273F-004
Q2101	222740515R2	74HC4051AF
Q2102,Q2105	22241443R2	TK15420M
Q2201	222740515R2	74HC4051AF

Transistors		
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Q2002,Q2006	2216175R2 or	KTC3875-GR or
Q2103,Q2106	2213145R2	2SC2712-GR
Q2003,Q2004	2216031R2 or	RN1444-A or
Q2108,Q2109	2216032R2	RN1444-B
Q2007	2216210R2 or	KRC104S or

2214490R2	RN1404
2216220R2 or	KRA102S or
2214530R2	RN2402
2216185R2 or	KTA1504-GR or
2214375R2	2SA1162-GR

Q2011-Q2014	2216220R2 or	KRA102S or
	2214530R2	RN2402
Q2104,Q2107	2216185R2 or	KTA1504-GR or
	2214375R2	2SA1162-GR
Q2301-Q2308	2216031R2 or	RN1444-A or

2216032R2	RN1444-B
Diodes	

D2001	223234R2 or	1SS352 or
D2006,D2007	223269R2	1SS355
D2103,D2104	223234R2 or	1SS352 or
D2106,D2107	223269R2	1SS355

Crystals		
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X2001	3010167 or	XTL-14.32M or
	3010347	HQS-HC49U-14318-11
X2002	3010238 or	XTL-17.73M or
	3010348	HQS-HC49U-17734-11 <O>

S VIDEO CIRCUIT PC BOARD (NAVD-7269-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		

Q2501,Q2511	222740515R2	74HC4051AF
Q2502,Q2602	22241443R2	TK15420M
Q2601,Q2611	222740515R2	74HC4051AF

Transistors		
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Q2401-Q2414	2216031R2 or	RN1444-A or
Q2522,Q2622	2216032R2	RN1444-B
Q2503,Q2505	2216175R2 or	KTC3875-GR or
	2213145R2	2SC2712-GR
Q2504,Q2506	2216185R2 or	KTA1504-GR or

Diodes		
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D2503-D2506	223234R2 or	1SS352 or
	223269R2	1SS355
Coils		

L2508,L2608	231237K022R2	NCH-1471
L2509,L2609	231292J056R2	NCH-1572
Capacitors		

C2422,C2424	354721019	100uF,6.3V,Elect.
C2426,C2428	354721019	100uF,6.3V,Elect.
C2432	354721019	100uF,6.3V,Elect.
C2504,C2506	354721019	100uF,6.3V,Elect.

C2573,C2575	354721019	100uF,6.3V,Elect.
C2604,C2606	354721019	100uF,6.3V,Elect.
Capacitors		

PRINTED CIRCUIT BOARD-PARTS LIST 9

CIRCUIT NO.			CONNECTOR PC BOARD (NAETC-7273-1N/1O)		
PART NO.			DESCRIPTION		
P2501	25051750	NSCT-4P1537	Sockets	Plugs	
P2502	25051568	NSCT-12P1355		P2007A,P2507A	25055712
P2503,P2504	25051748	NSCT-8P1535			NPLG-20P668
P2505B	25051237	NSCT-12P1027			
P2507B	25051241	NSCT-20P1031			
					DISPLAY CIRCUIT PC BOARD (NADIS-7330-1A/1B/1C/1D/1E/1F/1G)
					CIRCUIT NO.
					PART NO.
					DESCRIPTION
					FL tube
P2506A	25055236	NPLG-5P220		Q7501	212216
					Remote sensor
COMPONENT	VIDEO CIRCUIT PC BOARD (NAVD-7270-1N/1O)			U7201	16-BT-96GNK
CIRCUIT NO.	PART NO.	DESCRIPTION			
					SPS-444-1 or
					241335 or
					241341
					SPS-444-1-E1
					ICs
Q2701	2216175R2 or	KTC3875-GR or		Q7201	22241682R3
	2213145R2	2SC2712-GR		Q7502	22241680R2
					Transistors
D2701	223234R2 or	1SS352 or		Q7202	2216230R2 or
	223269R2	1SS355			2214540R2
				Q7503	2216175R2 or
RL2701,RL2702	25065610	NRL-2P1A-DC4,5-156		Q7538,Q7539	KTC3875-GR or
				Q7521-Q7527	2SC2712-GR
				Q7529-Q7534	2216190R2 or
P2701-P2703	25045629	NPJ-3PDGLR436 <D>		Q7546-Q7549	KRC102S or
	25045607	NPJ-3PDGLR414 <O>			2214470R2
					RN1402
					2214470R2
P2705B	25051233	NSCT-8P1023			Diodes
				D7201,D7202	223234R2 or
					1SS352 or
				D7502	223269R2
					1SS355
				D7203	224490510R2 or
					UDZ5.1B or
Q233	222780565	78M56		D7501	224490820R2 or
					UDZ8.2B or
					224550820R2
					UDZS8.2B
Q211	24120080	PC817X		D7521-D7527	225375
				D7529-D7532	SML1216C
Q231,Q232	2216175R2 or	KTC3875-GR or		D7533	225290
	2213145R2	2SC2712-GR		D7534	SEL4110R
				D7536-D7539	SEL4310G-D
					SEL4310G-D
D202,D203	223234R2 or	1SS352 or			225291D
	223269R2	1SS355			SEL4310D-D <S/G>
				X7201	Oscillator
					3010322
C223	354744709	47uF,16V,Elect.			Coils
C231	354741009	10uF,16V,Elect.		L7201	231237M022R2
C232	354751029	1000uF,25V,Elect.		R7201,R7202	BK1608LM182-T
					Capacitors
R233	453532294	0.22ohm+/-5%,1/2W,Metal		C7201,C7202	355721019
R234	441721514	150ohm+/-5%,2W,Metal oxide		C7203,C7204	375524744
				C7207	355721019
P202,P204	25045647	HSJ1002-01-1020		C7503	354721019
				C7506	100uF,6.3V,Elect.
				C7510	375524744
					0.47uF+/-5%,50V,Plastic
JL931A	25051107	NSCT-3P894		S7541-S7543	100uF,6.3V,Elect.
P2901B	25052142	NSCT-19P2040		S7545-S7549	0.47uF+/-5%,50V,Plastic
P6830B,P6832B	25051255	NSCT-3P1045		S7551-S7559	3.3uF,50V,Elect.
				S7563-S7568	
				S7571-S7579	
Q233A	27160145	RAD-51			
				S7581	
Q233B	82143010	3P+10FN(BC)			

NOTE: <D>:120V model only
 :Black model only
 <S>:Silver model only

<O>: All models except 120V model
 <G>: Golden model only

PRINTED CIRCUIT BOARD-PARTS LIST 10

CIRCUIT NO.	PART NO.	DESCRIPTION
Sockets		
P7201A	25051877	NSCT-33P1664
P7482A	25051089	NSCT-5P876
P7559A	25051087	NSCT-3P874
Holder		
Q7501A	27191074A	(FL)

VOLUME PC BOARD (NASW-7331-1A/1B/1C/1D/1E/1F/1G)

CIRCUIT NO.	PART NO.	DESCRIPTION
S7569	25065575	EC16B2425, Rotary encoder
P7559B	25051087	NSCT-3P874, Socket

HEADPHONE TERMINAL PC BOARD (NAETC-7332-1A/1B/1C/1D/1E/1F/1G)

CIRCUIT NO.	PART NO.	DESCRIPTION
P7481	25045514	YKB26-5005, Terminal <D/P>
	25045385	YKB26-5153, Terminal <GT/A/WT/R>
P7482B	25051089	NSCT-5P876, Socket

FRONT VIDEO PC BOARD (NAAF-7227-1N/1O/1R)

CIRCUIT NO.	PART NO.	DESCRIPTION
Terminals		
P2508	25051961	NSCT-4P1748 <D/P>
	25051569	NSCT-4P1356 <WT/A/GT/R>
P2510	25045674	NPJ-3PDB472 <D/P>
	25045675	NPJ-3PDB473 <WT/A/GT/R>
Sockets		
P2506B	2009990575UL	NSAS-10P0784
P3220B	2009990420	NSAS-6P0564

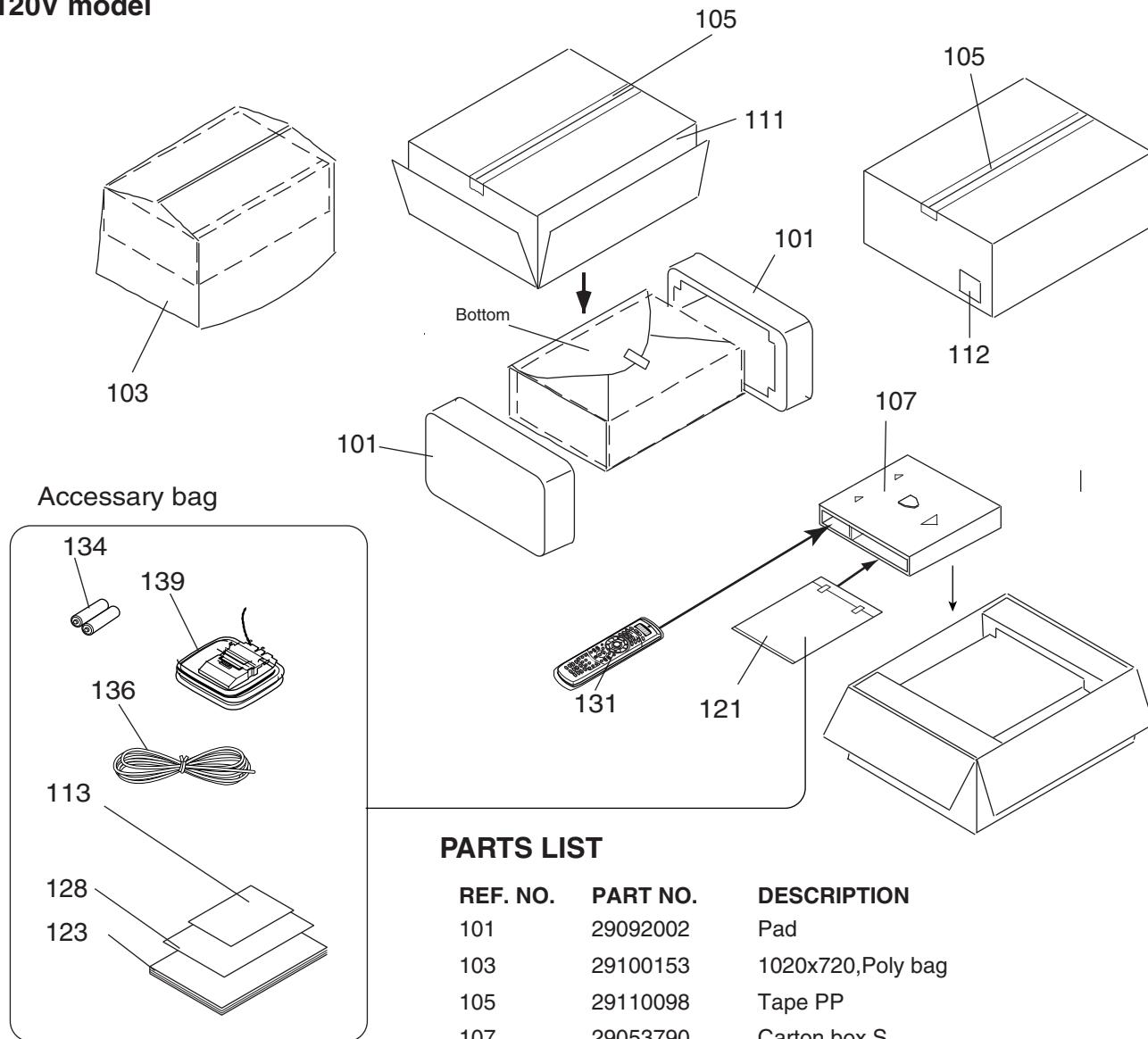
FRONT VIDEO 2 PC BOARD (NADG-7228-1N/1O/1R)

CIRCUIT NO.	PART NO.	DESCRIPTION
U2501	24120095	TORX179, Photo coupler
L2501	231237M022R2	NCH-1471, Coil
C2581	356741009R2	10uF, 16V, Elect. Capacitor
P102B	2009990513UL	NSAS-6P0675, Socket

NOTE: <D>:120V model only
 <P>:European model only
 <WT>:Worldwide model only
 <GT> 220V model only
 <R> Chinese model only
 <A>: Australian model only
 <O>: All models except 120V model

PACKING PROCEDURES

120V model

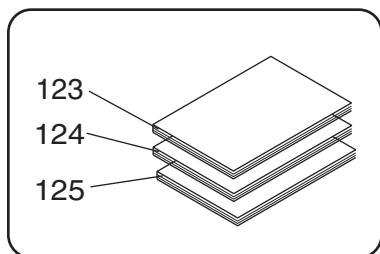
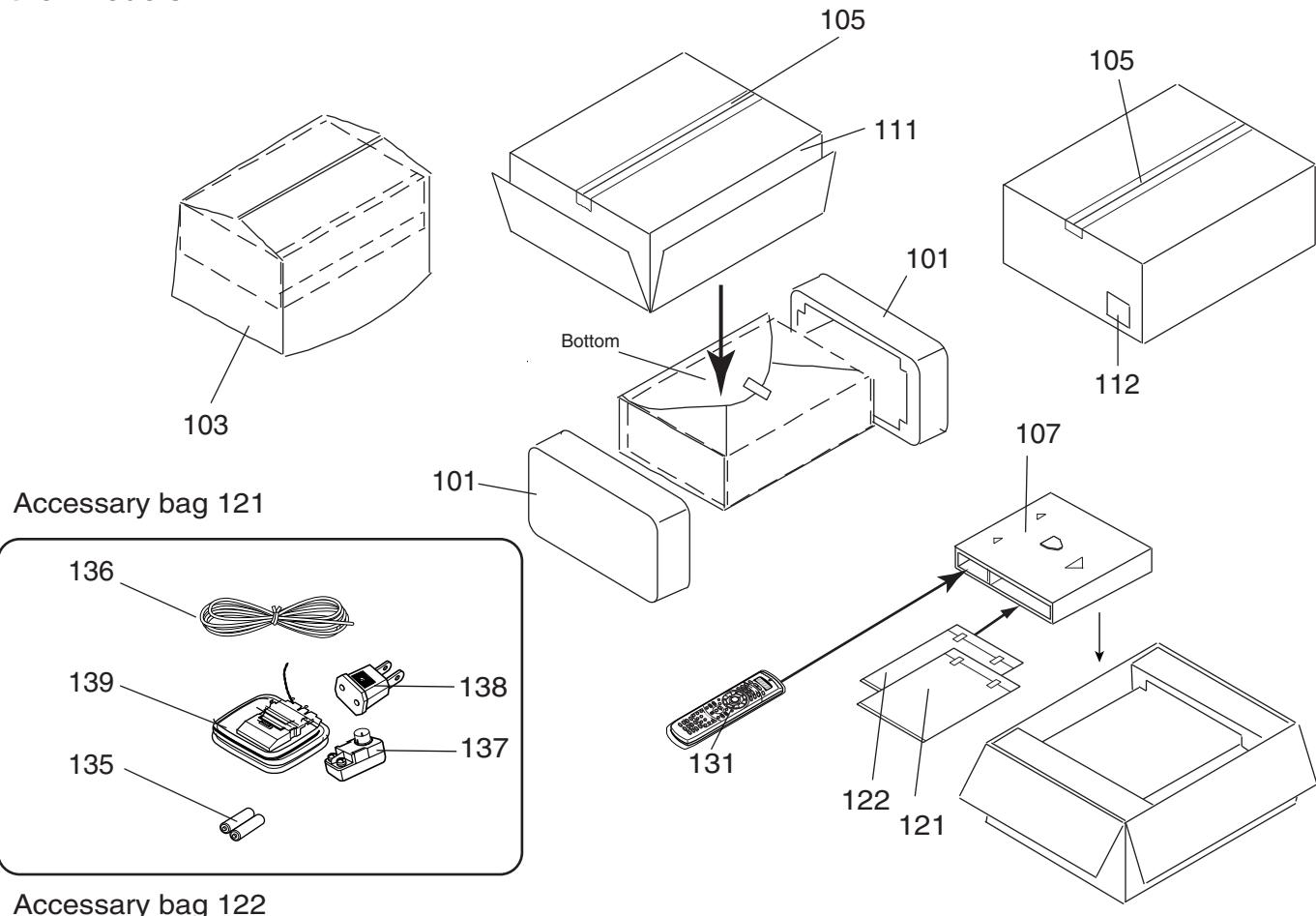


PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
101	29092002	Pad
103	29100153	1020x720,Poly bag
105	29110098	Tape PP
107	29053790	Carton box S
111	29053815A	Carton box
112	29362958A	Label UPC
113	29365090	Warranty card
121	29100097-1A	350*250,Poly bag
123	29343204A	Instruction manual E
128	29343205	Instruction manual E
131	24140460	RC-460M,Remote controller
134	3010054	UM-3,Two batteries
136	292142	FM antenna
139	232140	NMA-3057,AM antenna

PACKING PROCEDURES

Other models



NOTE:: Black model only
 <S>: Silver model only
 <G>: Golden model only
 <P>: European model only
 <WT>: Worldwide model only
 <GT>: 220V model only
 <A>: Australian model only
 <R>: Chinese model only

REF. NO.	PART NO.	DESCRIPTION
101	29092002	Pad
103	29100153	1020x720,Poly bag
105	29110098	Tape PP
107	29053790	Carton box S
111	29053816A 29053817A 29053818A 29053819A	Carton box <P> Carton box <WT/A> Carton box <S> Carton box <G>
112	29362955A 29362956A 29362957A	Label EAN Label EAN <S> Label EAN <G>
121	29100097-1A	350*250,Poly bag
122	29100097-1A	350*250,Poly bag
123	29343204A	Instruction manual E
124	29343206 29343208 29343207	Instruction manual FSI <P> Instruction manual CTCS <WT/GT/R> Instruction manual GDSw <P>
125	29343207	Instruction manual GDSw <P>
131	24140460	RC-460M,Remote controller
135	3010054	UM-3,Two batteries
136	292115	FM antenna
137	25065462	YAE21-0237,Antenna adapter <WT/A/GT>
138	25056005	CV-K-1,Conversion plug <WT>
139	232140	NMA-3057,AM antenna

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